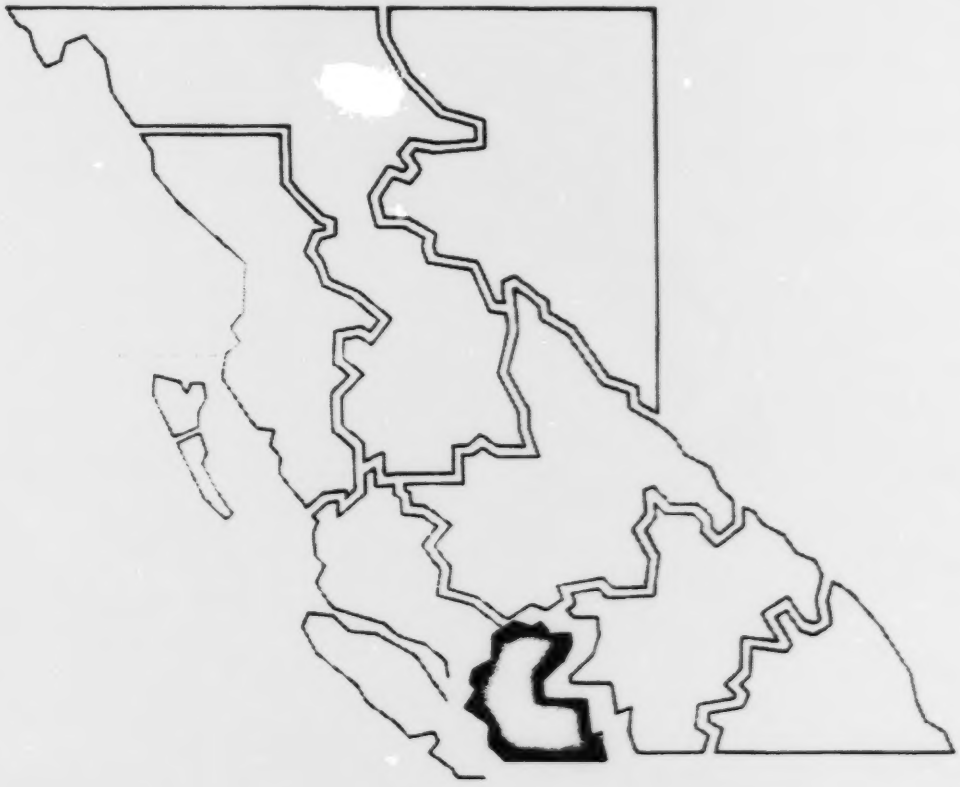
Mainland-Southwest – Region 2

Summary of
Transportation Committee Recommendations



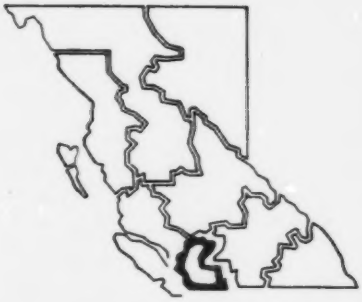
FREEDOM TO MOVE

89-06157/

Mainland-Southwest – Region 2

Elwood N. Veitch
Minister of Regional Development and
Minister of State for Mainland/ Southwest

Dan Peterson
Parliamentary Secretary



Harry De Jong
Parliamentary Secretary

We would like to express our appreciation to the six Regional District Chairmen who have served on the Mainland/Southwest Transportation Planning Committee, and to the members of the six Transportation Planning Subcommittees and the Greater Vancouver Community Advisory Committee, for helping to develop transportation priorities and strategies for the Mainland/Southwest Development Region.

Your commitment of time, energy and expertise will help ensure a sound transportation plan for the Mainland/Southwest Region and an effective transportation infrastructure for the economic development of this province.

Thank you for working together for a better B.C.

FREEDOM TO MOVE

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Harry De Jong, Parliamentary Secretary
Dan Peterson, Parliamentary Secretary
Corrinne H. Wright, Director, Central Fraser Valley Regional District
Lloyd McKimmon, Chairman, Dewdney-Alouette Regional District
Lloyd Forman, Chairman, Fraser-Cheam Regional District
Gil Blair, Chairman, Greater Vancouver Regional District
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Technical assistance was provided by **Delcan Corporation** to:

- Central Fraser Valley Regional District;
- Dewdney-Alouette Regional District;
- Fraser-Cheam Regional District;
- Squamish-Lillooet Regional District; and
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and by Ward Consulting Group to:

- Greater Vancouver Regional District.

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1.0 INTRODUCTION

1.0 INTRODUCTION

1.1 Objectives of the Mainland/Southwest Economic Development Regional Transportation Plan

In November 1988 the Honourable Neil Vant, Minister of Transportation and Highways, issued to British Columbians a challenge to be part of a planning process. The planning process would develop a transportation network for all modes operating in the Province.

The Province of British Columbia Strategic Transportation Plan 1990-2000, as it will be called, will determine how best to direct future resources - both public and private - in building transportation systems that will take British Columbia into the next century as an active trader in international markets, where efficient transportation networks play an integral role in the Province's economy.

The wear and tear of daily use and weather have taken their toll on bridges, roads, airports, railways and marine facilities in the Province. A balanced and comprehensive plan will allow for replacing, rebuilding, expanding and improving facilities as necessary.

Under the auspices of the Honourable Elwood N. Veitch, Minister of State, regional transportation planning committees were formed in each of the eight development regions and charged with the responsibility of preparing regional transportation plans with the following objectives:

1. To determine the present and future transportation needs and priorities of each Region.

2. To analyze issues and provide support documentation for recommended improvements.

3. To recommend to Government a transportation plan that included short and long term directions.

All modes of transportation, air, coastal marine, ferry, highways, ports, rail and transit were to be considered in the review. The overall goal was to produce at a regional level a report that would identify to the Minister of State transportation priorities and initiatives. The report would also form a part of the provincial strategic planning process.

The regional transportation plans are to reflect the views of the Region and its residents. Community input formed an integral part of the process.

1.2 The Process

The Mainland/Southwest Region has established six sub-committees, one for each Regional District, to prepare transportation plans as a basis for the development of an integrated regional plan. The Region also established a Community Advisory Committee which provided additional comments on the Greater Vancouver transportation study. This document summarizes the findings of the six Regional District Reports, as prepared by:

Central Fraser Valley Regional District	(CFVRD)
Dewdney-Alouette Regional District	(DARD)
Fraser-Cheam Regional District	(FCRD)
Greater Vancouver Regional District Greater Vancouver Community Advisory Committee	(GVRD)
Squamish-Lillooet Regional District	(SLRD)
Sunshine Coast Regional District	(SCRD)

During this process, each Regional District's Transportation Committee met several times to assess their district's transportation needs. They received submissions from interested citizens, organizations and municipal councils from their district. They used this information along with public meeting input to arrive at their recommended plan. A summary of statistics on the Regional Districts' planning process is shown in Table 1.2

Table 1.2

DATA ON REGIONAL PROCESS

	CFVRD	DARD	FCRD	GVRD	SLRD	SCRD
No. of Submissions	14	23	51	290	11	17
No. of Meetings:						
a) Public	1	3*	3	7	4	1
b) Committee	11	8	7	10	4	14
No. of Committee Members	9	7	10	18	5	8
Total No. of Projects Identified	22	18	42	77	40	11

* Open Houses

The Committees found that they were able to be objective in looking at the overall transportation needs of their district. For the first time many local citizens were able to develop a comprehensive Transportation Plan for their district. They were then able to present this plan to the Minister of State who will present the combined plans of the six Regional Districts to Cabinet. The overall planning process is shown on Exhibit 1.2.

The plans emphasize the projects and policies needed to encourage economic development of each district while enhancing the overall safety of the facilities. They emphasize the ongoing nature of the process. Each year the District Transportation Plan should be reviewed and updated and again submitted to the Minister of State. The plans should be dynamic in that they will continue to reflect current needs and desires of each district.

1.3 Major Areas of Overlap

Each of the six District Transportation Plans stands on its own. However, there are some areas of overlap.

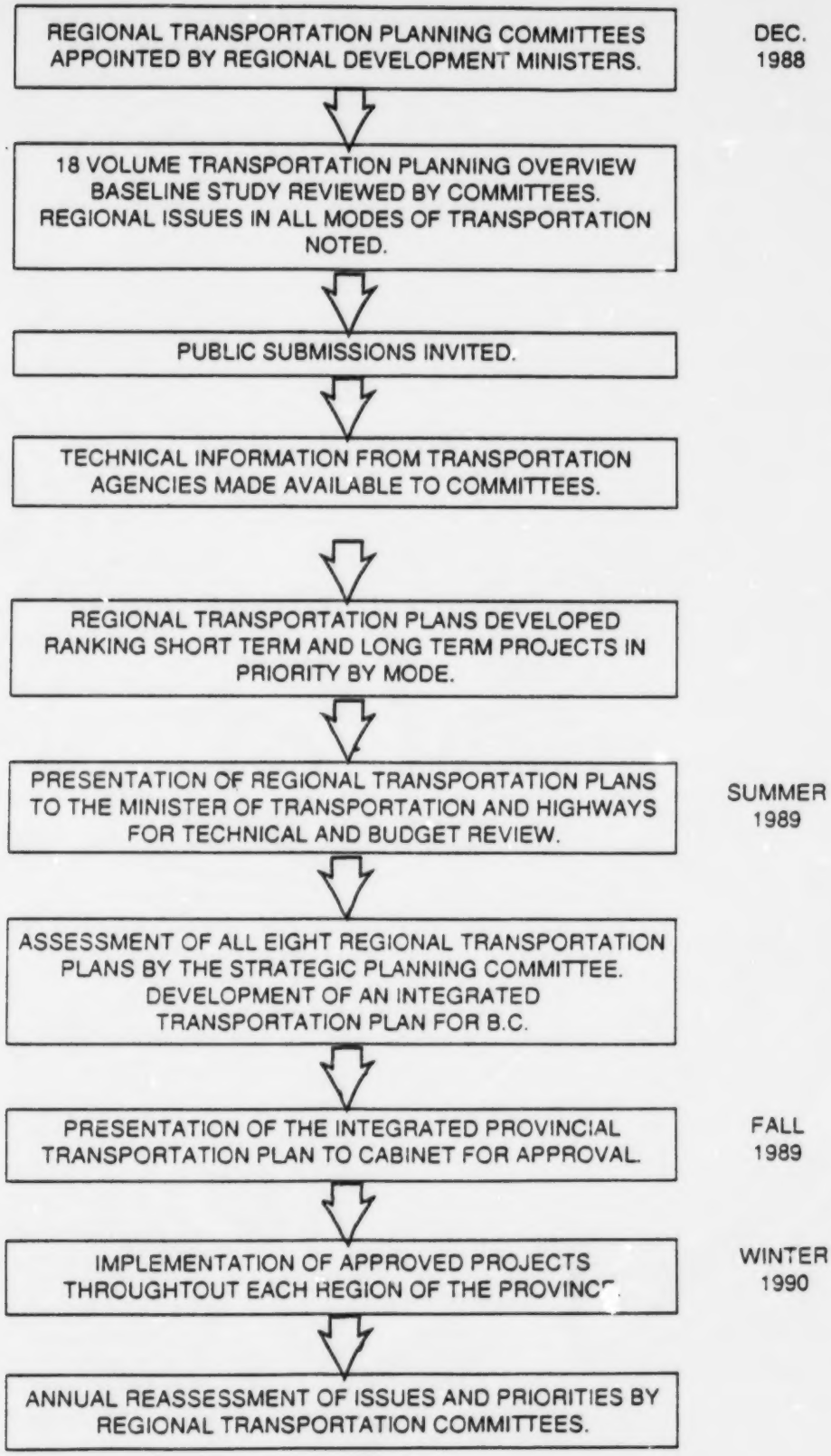
Horseshoe Bay Ferry Terminal upgrading is of concern to both the Sunshine Coast and Squamish-Lillooet Regional Districts. It requires improved access/egress, and increased holding capacity. These would upgrade Highway #1 and #99 operation at the terminal entrance as they would eliminate the queuing that presently occurs on Highway #1 at the exit to Highway #99. Safety would be enhanced and access to Highway #99 made easier.

The new Pitt River Bridge is a very important part of the Dewdney-Alouette Regional District plan. A special study will be required in the Greater Vancouver Regional District to ensure that the connections between the new bridge and the GVRD road system are adequately treated. Similarly, the new Fraser River Bridge proposed at 232 Street in Maple Ridge would provide a connection to Highway #1 and would require further analysis thrcugh Langley.

The Border Freeway recommended by Central Fraser should be studied in conjunction with the GVRD's proposed east-west connection for Highway #99 to Highway #1.

1.4 District Summaries

A short summary for each Regional District is given in the following sections. The major projects and issues are listed along with their Transportation Plan.


REGIONAL TRANSPORTATION PLANNING COMMITTEES APPOINTED BY REGIONAL DEVELOPMENT MINISTERS.
DEC. 1988
18 VOLUME TRANSPORTATION PLANNING OVERVIEW BASELINE STUDY REVIEWED BY COMMITTEES. REGIONAL ISSUES IN ALL MODES OF TRANSPORTATION NOTED.
PUBLIC SUBMISSIONS INVITED.
TECHNICAL INFORMATION FROM TRANSPORTATION AGENCIES MADE AVAILABLE TO COMMITTEES.
REGIONAL TRANSPORTATION PLANS DEVELOPED RANKING SHORT TERM AND LONG TERM PROJECTS IN PRIORITY BY MODE.
PRESENTATION OF REGIONAL TRANSPORTATION PLANS TO THE MINISTER OF TRANSPORTATION AND HIGHWAYS FOR TECHNICAL AND BUDGET REVIEW.
SUMMER 1989
ASSESSMENT OF ALL EIGHT REGIONAL TRANSPORTATION PLANS BY THE STRATEGIC PLANNING COMMITTEE. DEVELOPMENT OF AN INTEGRATED TRANSPORTATION PLAN FOR B.C.
PRESENTATION OF THE INTEGRATED PROVINCIAL TRANSPORTATION PLAN TO CABINET FOR APPROVAL.
FALL 1989
IMPLEMENTATION OF APPROVED PROJECTS THROUGHTOUT EACH REGION OF THE PROVINCE.
WINTER 1990
ANNUAL REASSESSMENT OF ISSUES AND PRIORITIES BY REGIONAL TRANSPORTATION COMMITTEES.

REGIONAL TRANSPORTATION PLANNING PROCESS

EXHIBIT 1.2

2.0 CENTRAL FRASER VALLEY REGIONAL DISTRICT

2.0 CENTRAL FRASER VALLEY REGIONAL DISTRICT

The Central Fraser Valley Regional District is located between the Fraser River and the U.S. border, immediately east of the Vancouver metropolitan area. It comprises the rapidly growing District Municipalities of Matsqui and Abbotsford and Electoral Area A.

The current population is approximately 80,000 and the projected growth rate of approximately 5% per annum will bring the population to over 125,000 by the year 2000.

Employment within the Matsqui-Abbotsford area has been increasing steadily over the past decade, with the largest proportion of the local work force (28%) being employed by Community and Business Service. However, job opportunities are not growing as rapidly as residential development, with the result being an increasing number of residents commuting westward for employment via Highway #1.

The rapid growth of residential development and in particular residents commuting to the metropolitan areas will only add to the already existing congestion unless the transportation system is improved.

The two highest priority projects, of equal importance, are the **reconstruction of the Mt. Lehman Interchange** and **upgrading of Highway #11 from the U.S. border to Harris Road.**

. **Mt. Lehman Interchange**

The reconstruction of the Mt. Lehman Interchange will improve access to the Abbotsford Airport and to the rapidly developing residential and industrial areas north and south of Highway #1. It will provide a direct connection to Maclure Road (Old Yale Road) and thence to Highway #11 and improve traffic flow and safety on the adjacent road network.

. **Highway #11**

Highway #11 between the U.S. border and the intersection with Old Yale Road, under growing pressure from the rapid increase in border crossings and local, industrial and commercial traffic, requires widening to four lanes with left turn lanes and signalization as appropriate and completion of the Old Yale Road interchange. North of the Highway #11 bypass to Harris Road requires similar treatment to accommodate increasing traffic and turning movements.

. **Border Freeway**

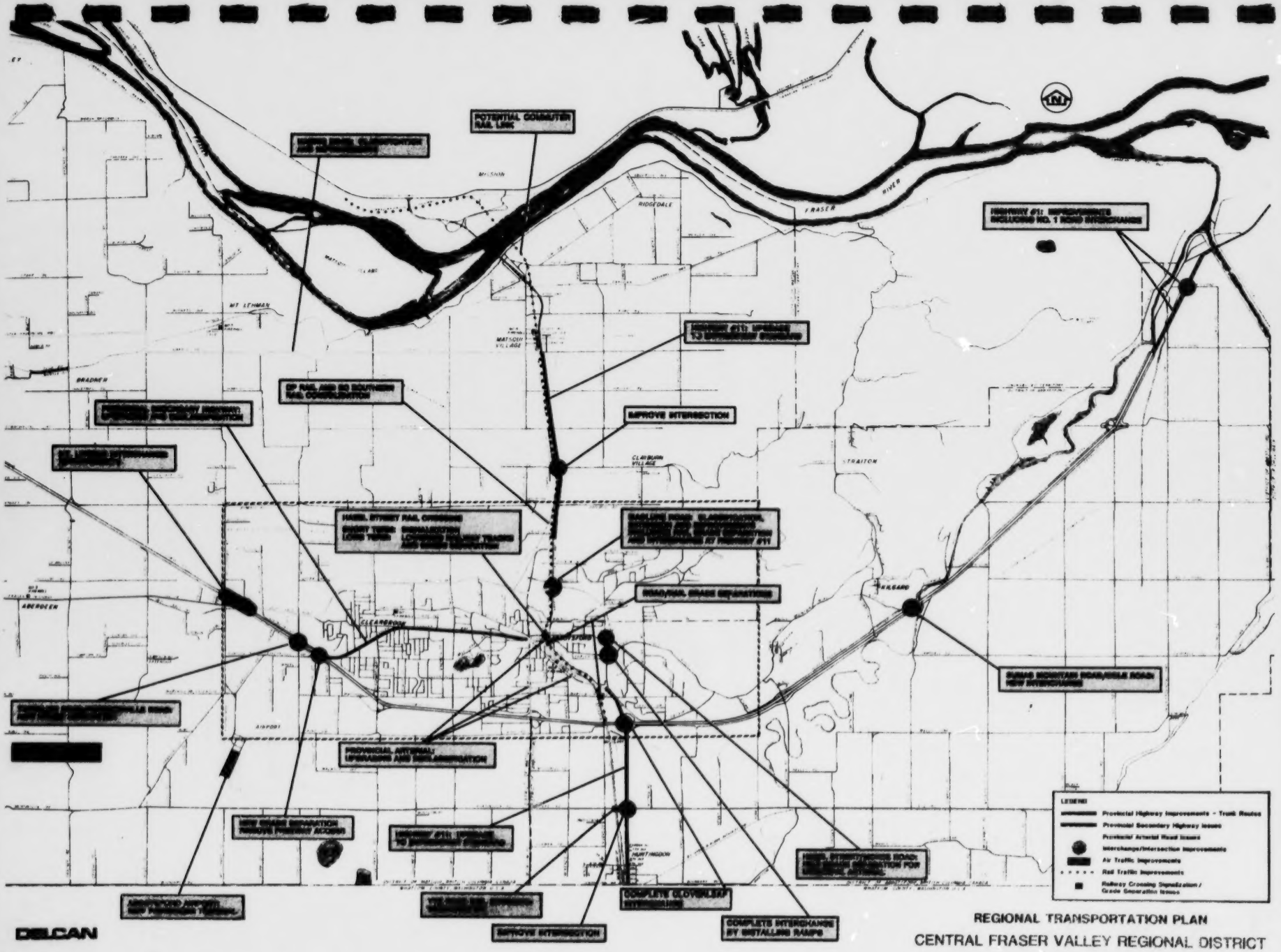
The highest priority for planning and design is the Border Freeway. This freeway would run along the King Road - 16 Avenue corridor and would connect Highway #1 on the east to Highway #99 on the west. This route would provide an important connection between the

Vancouver and Abbotsford Airports, and allow Abbotsford Airport to develop in tandem with Vancouver.

It would also be a southern controlled access highway allowing local and tourist traffic a direct connection from the interior of the province to Highway #99 and the Tsawwassen Ferry. The existing routes are severely congested because they have continuous development and access points throughout their length. It will not be possible to upgrade these and the already long travel times will continue to increase, if an alternate controlled access route is not provided.

It is recommended that a study be implemented to establish a location for a freeway in this corridor and that, when completed, the right-of-way be purchased so that the corridor's future viability is assured.

The following Exhibit and Tables give a summary of the Central Fraser Valley Regional District's priority transportation needs.



DELCAN

REGIONAL TRANSPORTATION PLAN
CENTRAL FRASER VALLEY REGIONAL DISTRICT
EXHIBIT 1

SHORT TERM PLAN: 0-5 YEARS IMPLEMENTATION

Table 2.1

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

CENTRAL FRASER VALLEY REGIONAL DISTRICT

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H1 Mt. Lehman Interchange	At Highway #1	Reconstruct the interchange at this location considering the future location for a proposed "Border Freeway" interchange. Also coordinate with the proposed Townline Road overpass. Widen South Fraser Way to 4 lanes from Mt. Lehman Road to Aldergrove.	40,600 (Highway #1) 8000 (Mt. Lehman Road)					Improve access to airport and Clearbrook built-up area. Facilitate industrial and residential development.	D,C	22.0		
H2 Highway #11 Upgrading	Harris Road to International Border	Confirm the designated classification for this route. Construct five lanes from U.S. Border to McClary. Construct four lanes with channelization from McClary to South Fraser Way. Construct four lanes with channelization for by-pass to Harris Road.	11,000 (0.5 km south of Highway #1) 20,500 (0.2 km north of Highway #1)					Promotes tourism, industrial, commercial and residential growth, and international trade. Reduce traffic accidents.	D,C	19.4		
T1 Additional Local Buses	Matsqui/Abbotsford Transit Service Area	Increase the number of buses from 4 to 12 and provide longer hours.						Reduce road construction costs. Reduce need for two cars per family. Improve access to community facilities (colleges, recreational facilities, etc.). Improve service to people not owning cars such as the high population of seniors.	C	1.8		
H3 Maclure Road Classification and Upgrading	Highway #1/ Mt. Lehman Road to Highway #11	Classify as Provincial Arterial. Upgrade to four lanes with left turn channelization with an interchange at Hwy. 11 and overpass structures at the BC Southern and CP Rail tracks.						Remove local traffic from Highway #1. Reduces short cutting through residential areas. Improves viability of Matsqui Rail Industrial Park. Provides another east-west route to reduce traffic congestion in downtown area.	P,D,C	14.0		
H4 Road/Rail Signalization	Vye Road and Hazel Street	Install complete traffic signalization at these road/rail crossings. The rail shunting tracks will have to be adjusted to accommodate Vye Road signalization.						Improve Safety		0.4		

*Number of accidents per million vehicle kilometres

SHORT TERM PLAN: 0-5 YEARS IMPLEMENTATION

Table 2.1

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

CENTRAL FRASER VALLEY REGIONAL DISTRICT

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

	PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC. RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H5	Border Freeway	Along King Road - 16th Avenue Corridor	Plan a new freeway route connecting Hwy #1 to Hwy #99						Provides strong connection between Vancouver and Abbotsford airports to facilitate tandem development of these airports. Provides southern high capacity controlled access route from the Region and Hwy. #1 on the east to Hwy. #99, 17 and the Tsawwassen Ferry on the west.	P	0.2		
R1	CPR and BC Southern Rail Consolidation	McCallum Road to Highway #1	Combine the CPR and BC Southern Rail into one joint line using the B.C. Southern						Would allow the utilization of federal funds. Would reduce costs of grade separation for all streets. Reduce traffic in residential areas and free up areas for industrial/commercial development.	P	0.2		
H6	Highway #1 Freeway Upgrading	East of Whatcom Road to Vedder Canal	Construct an interchange at No. 1 Road and eliminate all direct access. Existing W/B lanes become a local road. Construct new W/B lanes and a new bridge over the Sumas Canal	32,500 (Highway #1 at Vedder Canal)				1.51* (between Sumas Canal and Vedder Canal)	Reduce traffic accidents and congestion.	P,D,C	7.6		
H7	Hazel/McKee Overpass	Abbotsford/Matsqui	Plan an overpass of Highway #11 connecting Hazel Street to McKee Road							P	0.1		
R2	Extend Commuter Rail	To Mission	Extend the proposed Commuter Rail Service from Port Moody to Mission						Reduce traffic congestion and automobile pollution. Support residential and commercial development in this area.	P,D,C			
H8	Townline Road/ Peardonville Road Overpass	Over Highway #1	Construct an overpass of Highway #1 connecting Townline Road to Peardonville Road						Provide connection for residential development north of Highway #1 to industrial employment on the south side of the highway.	P,D,C	0.8		
H9	McCallum Road Declassification	South Fraser Way to Highway #1 Matsqui	MTH plan to declassify from Provincial Arterial status to Municipal responsibility. Should first be upgraded to four lanes, undivided standards with left turn slots, curb and gutter, and sidewalks	15,300 (on overpass of Highway #1)					Provide access for emergency vehicles to hospital with upgrading. Major road for commercial/ residential area. Improve access to Fraser College.	P,D,C			4.3

*Number of accidents per million vehicle kilometres

Table 2.1

SHORT TERM PLAN: 0 5 YEARS IMPLEMENTATION

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

CENTRAL FRASER VALLEY REGIONAL DISTRICT

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC. RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H10 West Railway Street Declassification	Essendene Avenue to South Fraser Way	MTH plan to declassify from Provincial Arterial status to Municipal responsibility Should first be upgraded to four lane standards as noted above.						Improve route for Abbotsford-Mission traffic including inter-hospital/emergency vehicular traffic.	D,C		1.0	
H11 Gladys Street Declassification	Highway #11 Bypass to Essendene Avenue	MTH plan to declassify from Provincial Arterial status to Municipal responsibility Should first be upgraded to four lane standards as noted above.							D,C			1.0
H12 Essendene Avenue Declassification	Gladys Street to West Railway Street	MTH plan to declassify from Provincial Arterial status to Municipal responsibility Should first be upgraded to four lane standards as noted above.							D,C			0.5
H13 South Fraser Way Declassification	McCallum Road west to Highway #1. Matsqui	MTH plan to declassify from Provincial Secondary status to Municipal responsibility. Should first be upgraded to four lane standards as noted above							D,C	3.0		
										.....	....	....
										69.5	5.3	1.5

Table 2.2

LONG TERM PLAN: TO YEAR 2000

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

CENTRAL FRASER VALLEY REGIONAL DISTRICT

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC. RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H5 Border Freeway	Along King Road - 16th Avenue Corridor	Construct a new freeway route connecting Hwy #1 to Hwy #99						Provides strong connection between Vancouver and Abbotsford airports to facilitate tandem development of these airports. Provides southern high capacity controlled access route from the Region and Hwy #1 on the east to Hwy #99, #17 and the Tsawwassen Ferry on the west	D,C			
R3 Extend Commuter Rail	Mission to Abbotsford	Extend the proposed Commuter Rail Service from Mission to Abbotsford						Reduce traffic congestion and automobile pollution. Support residential and commercial development in this area.	P,D,C			
T2 SkyTrain Extension and Express Bus Connections/Park and Ride	To Guildford Highway #1	Extend the SkyTrain system from the existing line out to Guildford exit from Hwy #1 and provide park and ride and Express Buses from surrounding areas feeding into the SkyTrain						Reduce traffic congestion and automobile pollution. Support residential and commercial development in this area.	P,D,C			
H14 Sumas Mountain Road/Cole Road Interchange	At Highway #1	Connect Sumas Mountain Road to Cole Road with an interchange at Highway #1						Better access to highway for industrial traffic leaving the Region. Reduce truck traffic on local roads. Save farmland.	P		0.1	
H15 Road/Rail Grade Separations	Marshall Road Hazel Street Essendene Avenue	Construct overpasses or underpasses of the rail tracks at these intersecting road locations						Possibly take advantage of CP Rail Federal cost sharing programs.	D,C		2.5	
H7 Hazel/McKee Overpass	Abbotsford/Matsqui	Construct an overpass of Highway #11 connecting Hazel Street to McKee Road							C	0.6		
H16 Harris Road Classification	Highway #11 to Highway #1	Alignment improvements and provincial arterial classification						Accommodate North Shore to Highway #1 traffic.	P,D,C		X	
R4 Lowering of Railroad tracks	Downtown Abbotsford	Tracks need to be lowered below ground in the long term to facilitate the construction of road/rail grade separations This would occur when grade separations are implemented						Reduce cost and local impact when building grade separations.	P			0.2

Table 2.3

SUMMARY OF PROPOSED INITIATIVES

CENTRAL FRASER VALLEY REGIONAL DISTRICT

INITIATIVE TITLE	PROBLEM/OPPORTUNITY	ACTION PROPOSED
General		
Employment	Scattered employment - increase automobile travel.	Encourage local employment opportunities.
Hospital Facilities	Emergency vehicles are delayed during peak traffic hours. The availability of immediate emergency air service is inconsistent.	Improve local hospital facilities to reduce dependency on Vancouver General Hospital.
Transit		
Transit Ridership	Need to encourage more transit ridership.	Road and highway improvements should make provision for future mass transit. High occupancy vehicle (HOV) lanes should be provided on Highway #1 as part of the corridor upgrading.
Local Transit	Local transit ridership is very high.	This is an immediate priority for more local buses and longer hours of service.
Commuter Rail/SkyTrain	Impact on area.	The impact that the extension of Commuter Rail to this area will have on the probability of future SkyTrain service to this area must be addressed.
Air		
Abbotsford Airport		Passenger Terminal to enhance air traffic at airport. The scheduled 1991 completion of the Abbotsford Passenger and Commercial Business Centre must be met.

INITIATIVE TITLE	PROBLEM/OPPORTUNITY	ACTION PROPOSED
Rail		
Dangerous Goods	Dangerous goods not yet a problem.	The potential dangers should be periodically reviewed.
Cost Sharing	Availability of money.	Federal funds should be made available for Provincially Chartered Railways.
Roads		
Upgrading Roads	The MTH currently do not define the amount of upgrading for candidate road declassification from Provincial to Municipal responsibility.	All roads should be upgraded to four lanes arterial standard with left turn lanes, curb and gutter and sidewalks.
Coordination of Improvements	Lack of coordination and communication amongst government agencies and departments.	Road improvements should be coordinated with other related improvements such as drainage, sewerage, etc. This requires planning and communication between various jurisdictions and departments.
Funding R.O.W.	Loss of future corridors and ability to upgrade facilities due to lack of available R.O.W.	A funding program should be introduced or enhanced to purchase property required for future road right-of-way well in advance of construction taking place. The relatively few corridors remaining for future new roads are being quickly eliminated by land developments.
Sharing of Road Acquisition Costs	Road acquisition costs incurred by a municipality as part of a project shared under the Revenue Sharing Program for Major Municipal Roads with the Provincial Government are only eligible for cost sharing if the property required for the road project has been purchased **after** approval of the project by the Province. Good planning necessitates the acquisition of lands far in advance of actual construction.	The Provincial Government should accept road acquisition costs as being eligible for cost sharing if the lands have been purchased within the 10-year period prior to formal approval of a road construction project under the Revenue Sharing Program.

3.0 DEWDNEY-ALOUETTE REGIONAL DISTRICT

3.0 DEWDNEY-ALOUETTE REGIONAL DISTRICT

The Dewdney-Alouette Regional District is situated north of the Fraser River within the Lower Fraser Valley of British Columbia. It comprises the District Municipalities of Maple Ridge, Pitt Meadows and Mission as well as five Electoral Areas (including both rural settlements and mountainous hinterland). The current population is approximately 80,000.

The economy is predominantly made up of businesses in the retail trade and commercial services sector but manufacturing has been the most significant growth area since the mid 1970's. However, growth in the wholesale trade sector has been restricted by the lack of adequate transportation into the greater Vancouver market area.

A significant portion of the D.A.R.D. employed labour force are travelling westward through the Regional District to their places of employment and the majority of these are commuting over the Pitt River to employment within the GVRD.

The Region is ideally suited for increased residential and industrial growth. It has the second largest urban land reserve in the Lower Mainland and generates only 5% of the agricultural revenue of the Fraser Valley. The development growth potential is estimated at approximately 240,000 based on existing community plans. By encouraging development in **the Dewdney-Alouette Regional District,** the pressure could be taken off the Agricultural Land Reserve in other areas of the Lower Mainland. To do this, major improvements will have to be made to the transportation system.

Highway #7 requires the following improvements immediately:

- Upgrading to four lanes with left turn channelization from east of Mission to Albion.

- From the Pitt River Bridge to Harris Road the ditches should be filled and concrete median barrier installed to reduce the number of fatalities in this dangerous section of the road.

- From Harris Road east to 222 Street intersection widening should be implemented to increase capacity.

The improvements to the Lougheed Highway will help, but not solve, Dewdney-Alouette's main transportation problem. When the Pitt River Bridge is open for river traffic, the resulting delays and congestion on Highway #7 are a very serious problem. It is imperative to the Region's economic growth that a new high level bridge be constructed across the Pitt River.

The bridge would connect to the new North Fraser Freeway which will provide a high level of service to the Region. These two projects are the most important building blocks for Dewdney-Alouette's transportation plan.

Planning and purchase of Right-of-Way should proceed immediately so that the construction of these facilities can be assured in the near future.

The Pitt River High Level Bridge and the North Fraser Freeway would provide the impetus for continued development in the Dewdney-Alouette Regional District, thus removing the pressure for residential use of agricultural land in other areas of the Lower Mainland. The provision of high vehicle occupancy lanes on these facilities would promote increased transit ridership and reduce the number of automobiles travelling towards downtown Vancouver.

Also of immediate concern is the accident rate on the Mission Bridge across the Fraser River. No post median barrier should be installed on this bridge as soon as possible.

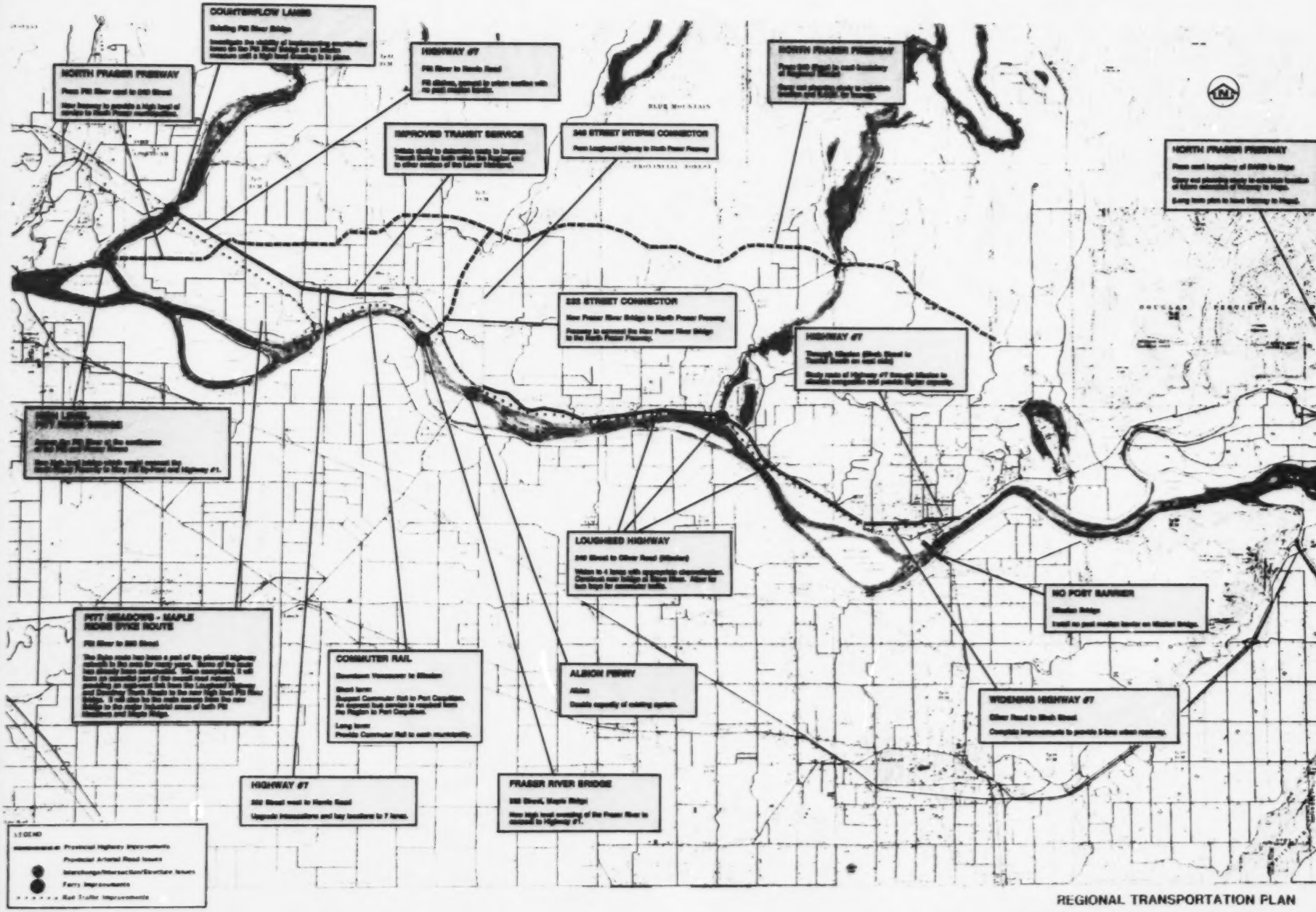
In addition to the major initiatives outlined above, the following are recommended:

- Construction of the dyke route in conjunction with the new high level Pitt River Bridge will improve access to the Pitt Meadows Airport, the major industrial areas of Pitt Meadows and Maple Ridge, and the Katzie Indian Band.

- Improve transit by initiating a study to determine costs to provide better service both within the Region and to other sectors of the Lower Mainland.

- Double the capacity of the existing Albion Ferry to relieve the long queues and waiting time for traffic needing this service.

The following Exhibit and Tables give a summary of the Dewdney-Alouette Regional District's priority transportation needs.



REGIONAL TRANSPORTATION PLAN

DELCAN

DEWDNEY-ALOUETTE REGIONAL DISTR

EXHIBIT

Table 3.1

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

DEWDNEY-ALOUETTE REGIONAL DISTRICT

SHORT TERM PLAN: 0-5 YEARS IMPLEMENTATION

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

	PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC RATE ***	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H1	Lougheed Highway	240 Street to Oliver Road (Mission)	Widen to 4 lanes with appropriate channelization. Construct new bridge at Stave River. Allow for bus bays for commuter traffic	11,900 (2.7 km west of Stave River Bridge)	.....	.....	.....	.....	Supports Residential Growth Support Industrial Growth Safety Supports Tourism	P D C*	0.3 1.1 35.0		
H2	High Level Pitt River Bridge	Across the Pitt River at the confluence of the Pitt and Fraser Rivers	New high level bridge which would connect the North Fraser Freeway to the Mary Hill By-Pass and Highway #1	53,500 (1988 count on existing bridge)	.....	.....	.....	.....	Supports Tourism Supports Residential Growth Supports Industrial Growth Safety	P D*	1.5 21.4		
H3	North Fraser Freeway	From Pitt River east to 240 Street	New freeway to provide a high level of service to North Fraser municipalities	.....	.....	.....	.....	.....	Supports Tourism Supports Residential Growth Supports Industrial Growth Safety	P D C	0.1 0.8 25.0		
H4	240 Street Interim Connector	Lougheed Highway to North Fraser Freeway		.....	.....	.....	.....	.....	Supports Residential Growth Supports Industrial Growth Safety	C	0.3		
H5	No Post Barrier	Mission Bridge	Install no post median barrier on Mission Bridge	20,800	.....	.....	.....	.....	Safety	D C	0.2 3.0		
H6	Highway #7	Pitt River to Harris Road	Fill ditches, convert to urban section with no post median barrier	.....	.....	.....	.....	.....	Supports Residential Growth Supports Industrial Growth Safety	D C	0.3 3.0		
H7	Widening Highway #7	Oliver Road to Birch Street	Complete improvements to provide 5-lane urban roadway	15,200 (1986 count 10 m east of Park Street)	.....	.....	.....	.....	Supports Residential Growth Supports Industrial Growth Safety	P D C	0.2 ** **		
H8	Highway #7	Through Mission (Birch Street to Tourist Booth on east side)	Study route of Highway #7 through Mission to alleviate congestion and provide higher capacity	.....	.....	.....	.....	5.32	Supports Tourism Supports Residential Growth Supports Industrial Growth Safety	P D C	0.1 0.3 17.0		
H9	Highway #7	222 Street west to Harris Road	Upgrade intersections and key locations to 7 lanes	38,400 (1986 count 0.2 km east of Harris Road)	.....	.....	.....	.....	Supports Residential Growth Supports Industrial Growth Safety	P	0.1		
H10	Counterflow lanes	Existing Pitt River Bridge	Investigate the viability of implementing counterflow lanes on the Pitt River Bridge as an interim measure until a high level crossing is in place	53,500 (1988 count)	.....	.....	.....	.....	Supports Residential Growth Supports Industrial Growth Safety	C	3.0		
H11	Albion Ferry	Albion	Double capacity of existing system	.....	.....	.....	.....	.....					

* Includes Right-of-way Acquisition Costs
** Cost to be determined by study
***Accident Rate = number of accidents per million vehicle kilometres

Table 3.1

SHORT TERM PLAN: 0 5 YEARS IMPLEMENTATION

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

DEWDNEY-ALOUETTE REGIONAL DISTRICT

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC. RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H12 Pitt Meadows Maple Ridge Dyke Route	Pitt River to 203 Street	The Dyke route has been a part of the planned highway network in the area for many years Some of the route has already been constructed When completed, it will form an essential part of the overall road network providing an east-west link from the Lougheed Highway and Dewdney Trunk Roads to the new high level Pitt River Bridge It will also be the main access from the new Bridge to the major industrial areas of both Pitt Meadows and Maple Ridge (2 lanes RAU)	....	....	....	....	....	Supports Industrial Growth	P D C	0 1 0 5	13.6	
H13 Fraser River Bridge	232 Street Maple Ridge	New high level crossing of the Fraser River to connect to Highway #1	....	....	....	....	....	Supports Tourism Supports Residential Growth Supports Industrial Growth	P,D	3.0		
H14 232 Street Connector	New Fraser River Bridge to North Fraser Freeway	Freeway to connect the new Fraser River Bridge to the North Fraser Freeway	....	....	....	....	....	Supports Tourism Supports Residential Growth Supports Industrial Growth	P,D	7.5		
H15 North Fraser Freeway	From 240 Street to east boundary of Regional District	Carry out corridor planning study to establish location and R.O.W. for freeway	....	....	....	....	....	Supports Tourism Supports Industrial Growth	P		0.4	
R1 Commuter Rail	Downtown Vancouver to Mission	Support Commuter Rail to Port Coquitlam An express bus service is required from the Region to Port Coquitlam	....	....	....	....	....	Supports Residential Growth Supports Industrial Growth	P	0.1		
T1 Improved Transit Service		Initiate study to determine costs to improve Transit Service both within the Region and to other sectors of the Lower Mainland.	....	....	....	....	....	Supports Residential Growth Supports Industrial Growth	P	0.1		

LONG TERM PLAN: TO YEAR 2000

Table 3.2

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

DEWDNEY-ALOUETTE REGIONAL DISTRICT

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

	PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H2	High Level Pitt River Bridge	Across the Pitt River at the confluence of the Pitt and Fraser Rivers	New high level bridge which would connect the North Fraser Freeway to the Mary Hill By-Pass and Highway #1	53,500 (1988 count on existing bridge)	.....	.....	.....	.....	Supports Tourism Supports Residential Growth Supports Industrial Growth Safety	C	150.0		
H3	North Fraser Freeway	From Pitt River east to 240 Street	New freeway to provide a high level of service to North Fraser municipalities and to provide freeway route through to Hope						Supports Tourism Supports Residential Growth Supports Industrial Growth Safety				
H13	Fraser River Bridge	232 Street Maple Ridge	New high level crossing of the Fraser River to connect to Highway #1	.....	.....	.....	.....	.....	Supports Tourism Supports Residential Growth Supports Industrial Growth	D,C		70.0	
H14	232 Street Connector	New Fraser River Bridge to North Fraser Freeway	Freeway to connect the new Fraser River Bridge to the North Fraser Freeway	.....	.....	.....	.....	.....	Supports Tourism Supports Residential Growth Supports Industrial Growth	D,C		35.0	
H16	North Fraser Freeway	From east boundary of DARD to Hope	Carry out planning study to establish location of future extension of freeway to Hope (Long term plan to have freeway to Hope)	.....	.....	.....	.....	.....	Supports Tourism Supports Industrial Growth	P		1.0	
R1	Commuter Rail	From Coquitlam to Mission	Provide Commuter Rail to each municipality	.....	.....	.....	.....	.....	Supports Tourism Supports Residential Growth	D,C		X	

Table 3.3

SUMMARY OF PROPOSED INITIATIVES

DEWDNEY-ALOUETTE REGIONAL DISTRICT

INITIATIVE TITLE	PROBLEM OPPORTUNITY	ACTION PROPOSED
Vessel Size and Bridge Clearance	The rail bridge at New Westminster presently restricts the size of ships which can navigate further upstream. It appears that with continual loss of industrial waterfront footage occurring in Vancouver there will be a need for industry to relocate upstream.	Carry out a study to evaluate the feasibility of replacing the rail bridge with a structure with sufficient clearance to allow larger vessels to service the Region.
Liveable Region	To increase the level of local employment so that commuting across Regional boundaries can be reduced.	Improve the employment base in this Regional District.
Air Quality	Reduce hydrocarbon emission.	Increase emphasis on Transit.
Park & Ride Facilities	Too many autos travelling with only one occupant.	Establish Park & Ride facilities.
Dangerous Goods	Many dangerous goods are transported through the Region.	Continue to study ways to reduce the risk of accidents.

Note: These initiatives involve changes in transportation policy, legislation and regulation to enhance the safety and mobility of the travelling public, without large expenditure of public funds.

4.0 FRASER-CHEAM REGIONAL DISTRICT

4.0 FRASER-CHEAM REGIONAL DISTRICT

The Regional District of Fraser-Cheam covers an area of approximately 11,000 square kilometres. Its major features include the Fraser Valley, the Fraser Canyon, Harrison Lake, the Lillooet Valley, and the Cascade, Hozameen and Skagit Mountain Ranges.

The population is approximately 61,000, of which about 75% reside in Chilliwack, the Region's agricultural, commercial and general service centre.

The Regional District's economy is based on (in terms of employment) four industries, agriculture, logging, tourism and government.

This geographic, demographic and economic structure has significant impact upon the demands for transportation.

- The Regional District functions as a corridor for utilities and transportation to connect the coastal areas with interior B.C., Alberta and central Canada, independent of the trends or needs of Fraser-Cheam itself.

- The truck logging industry places great demand upon the internal transportation system and will continue to require new routes for both harvest and transport of the product.

- The tourist industry places concentrated peak demands (both seasonal and local) on the transportation system.

- The demographic structure, in particular the projected rapid population growth in the older age groups, and the concentration of residential development in Chilliwack will lead to a demand for specialized public transportation services in a relatively small population base.

Current and proposed economic development projects are incremental and include the following:

- continued public sector investment at CFB Chilliwack, the Agricultural Research Station at Agassiz, the prison services;

- development plans are in place for harvesting large areas of timber supply in the Nahatlatch and the northeast portions of the Region; and

- a major expansion and refurbishing of the resort and public infrastructure at Harrison Hot Springs.

The corridors of two major railways and three major highways traverse the regional district:

- CP Rail runs on the north of the Fraser River
- CN Rail runs on the south of the Fraser River
- Highway No. 1 (The Trans Canada Highway) follows the Fraser River and Canyon to the Central and Northern B.C. interior
- Highway No. 3 follows the Skagit River south to the southern B.C. interior
- Highway No. 5 follows the Coquihalla River east to the central B.C interior

The Regional District is concerned about the safety of the interface between the corridor oriented through traffic and the local traffic. The proposed construction and upgrading of interchanges at Yale Road West and Annis Road on Highway #1 will eliminate dangerous traffic conflicts.

Safe geometric standards are another primary objective of the Regional District. The upgrading of the Fraser Bridge on Highway #1 at Hope and realignment of the approaches will address the currently unacceptable accident rate on this facility and enhance the safe operation of both through and local traffic.

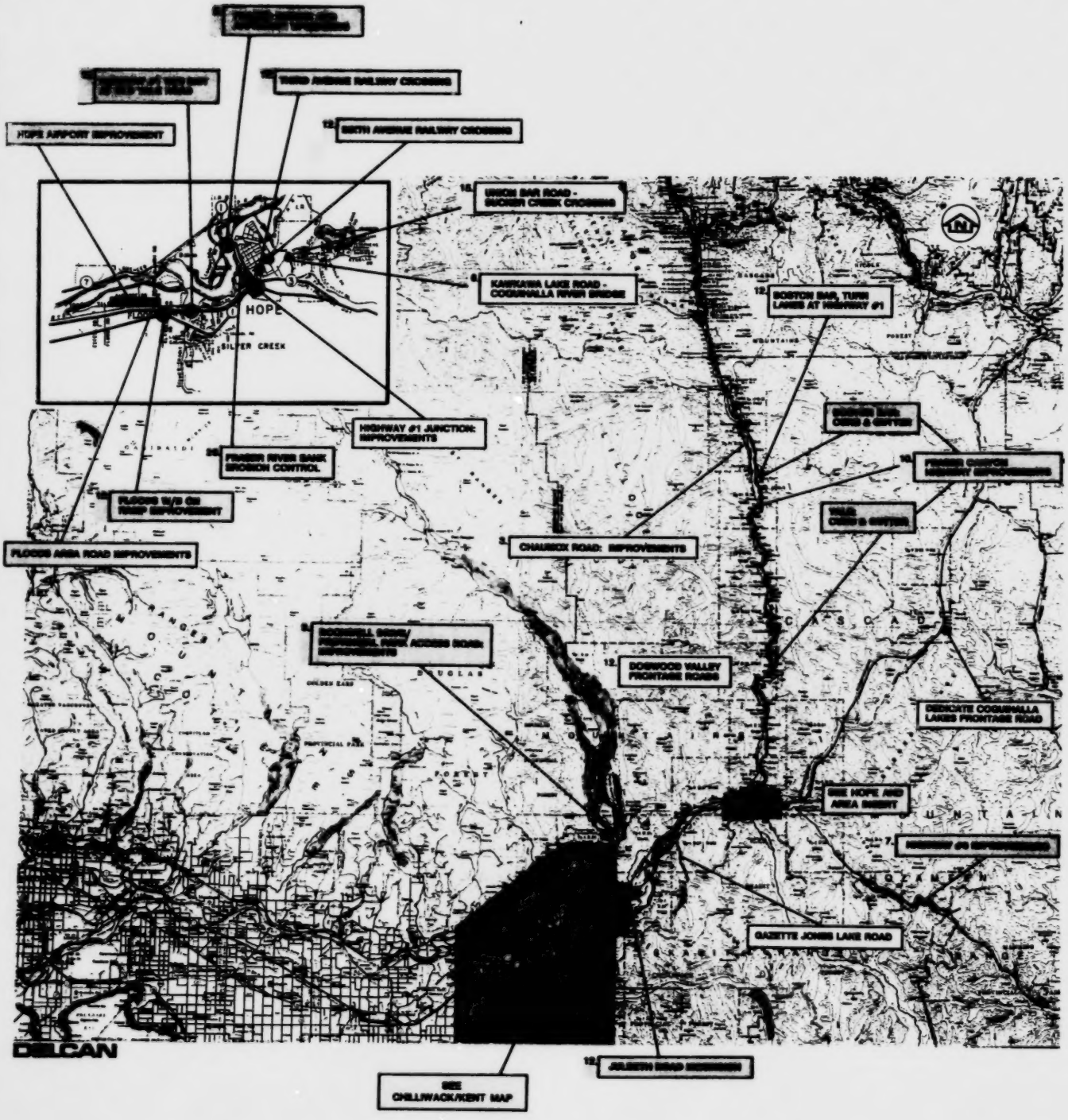
The Regional District also places high priority on upgrading Chaumox Road. This facility must accommodate a projected 150 logging trucks/day in addition to other industrial and tourist traffic. Safety is a major consideration in these improvements.

The proposed improvement of Young Road (including widening to four lanes) will address the local traffic needs, and in particular the high concentration of the Regional District's population residing and/or employed in Chilliwack.

The region is home to a growing community with agricultural and commercial interests. It is also the destination of a rapidly expanding tourist industry. All these pursuits attract an increase in vehicular travel and the need for **additional road capacity**.

The Regional District wishes to pursue a comprehensive transportation plan which encompasses the needs for greater safety with those of greater traffic capacity.

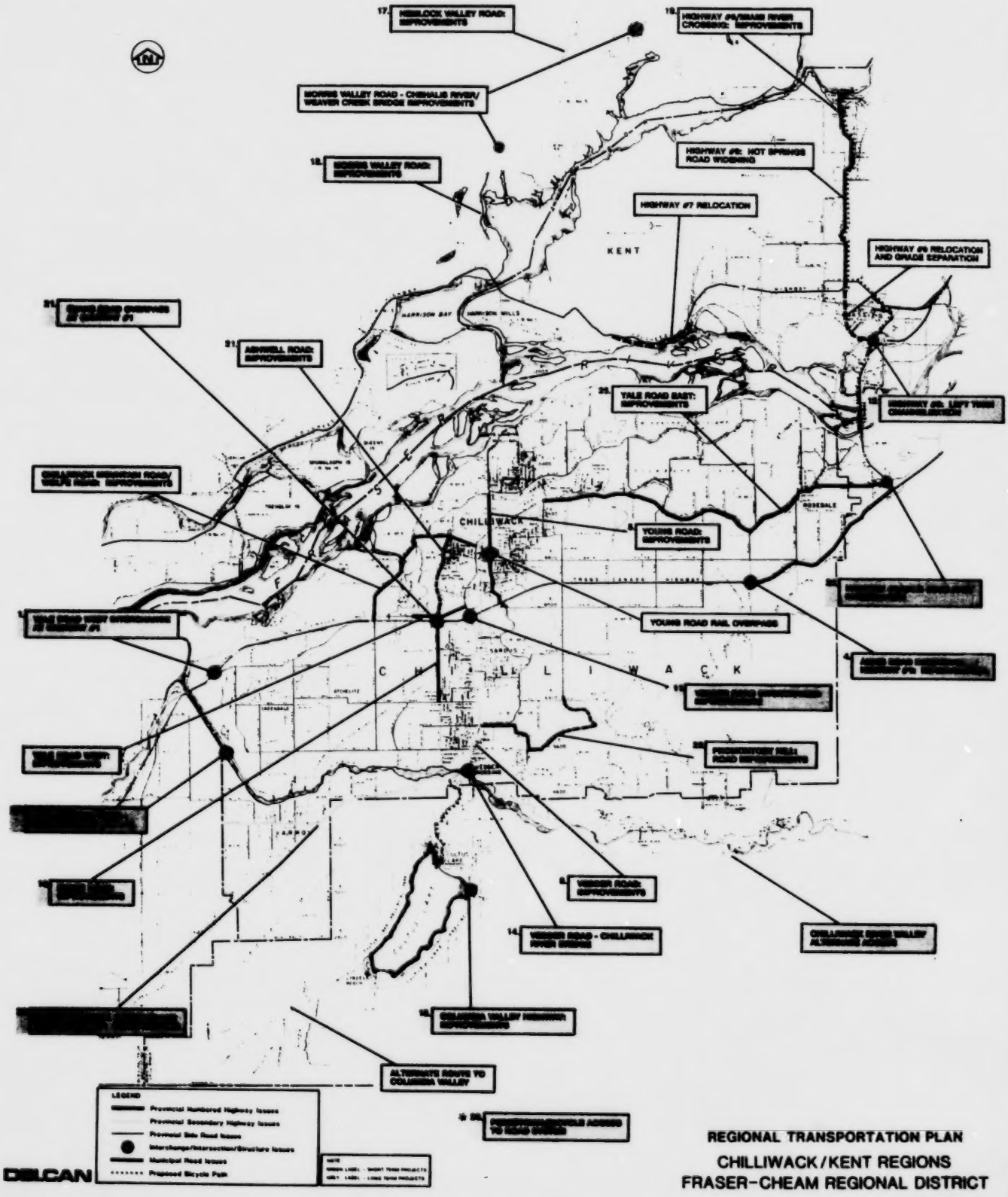
The following Exhibits and Tables give a summary of the Regional District of Fraser-Cheam's priority transportation needs.


HOPE AIRPORT IMPROVEMENT
THIRD AVENUE RAILWAY CROSSING
12. SIXTH AVENUE RAILWAY CROSSING
HOPE
SILVER CREEK
15. BOSTON BAR ROAD - BOSTON CREEK CROSSING
6. KAWKAWA LAKE ROAD - COQUIHALLA RIVER BRIDGE
12. BOSTON BAR, TUNNEL LAKES AT HIGHWAY #1
HIGHWAY #1 JUNCTION: IMPROVEMENTS
FRASER RIVER BANK EROSION CONTROL
FLOODS 1/2 ON ROAD IMPROVEMENT
FLOODS AREA ROAD IMPROVEMENTS
2. CHILLIWACK ROAD: IMPROVEMENTS
12. DOGWOOD VALLEY FRONTAGE ROADS
DEDICATE COQUIHALLA LAKES FRONTAGE ROAD
SEE HOPE AND AREA INSET
GAZETTE JONES LAKE ROAD
DELCAN
SEE CHILLIWACK/KENT MAP
LEGEND
Provincial Numbered Highway Issues
Provincial Arterial Highway Issues
Provincial Side Road Issues
Interchange/Intersection/Structure Issues
Air Traffic Improvements
NOTE
GREEN LABEL - SHORT TERM PROJECTS
GREY LABEL - LONG TERM PROJECTS

REGIONAL TRANSPORTATION PLAN

FRASER-CHEAM REGIONAL DISTRICT

EXHIBIT I


17. HEMLOCK VALLEY ROAD: IMPROVEMENTS
19. HIGHWAY #9/SUMAS RIVER CROSSINGS: IMPROVEMENTS
MORRIS VALLEY ROAD - CHEHALIS RIVER/ WEAVER CREEK BRIDGE IMPROVEMENTS
12. HODGES VALLEY ROAD: IMPROVEMENTS
HIGHWAY #9: HOT SPRINGS ROAD WIDENING
HIGHWAY #7 RELOCATION
KENT
HIGHWAY #9 RELOCATION AND GRADE SEPARATION
21. ASHWELL ROAD: IMPROVEMENTS
25. YALE ROAD EAST: IMPROVEMENTS
CHILLIWACK
YOUNG ROAD: IMPROVEMENTS
YOUNG ROAD RAIL OVERPASS
C H I L L I W A C K
8. VEDDER ROAD: IMPROVEMENTS
14. VEDDER ROAD - CHILLIWACK RIVER BRIDGE
ALTERNATE ROUTE TO COLUMBIA VALLEY
LEGEND
Provincial Numbered Highway Issues
Provincial Secondary Highway Issues
Municipal Road Issues
Proposed Bicycle Path
DELCAN

REGIONAL TRANSPORTATION PLAN

CHILLIWACK/KENT REGIONS

FRASER-CHEAM REGIONAL DISTRICT

EXHIBIT 2

SHORT TERM PLAN: 0-5 YEARS IMPLEMENTATION

Table 4.1

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF FRASER-CHEAM

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

	PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC 1987	TRAFFIC 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC.* RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH (1st year)	MEDIUM (2nd-3rd years)	LOW (4th-5th years)
H1	Yale Road West Interchange at Hwy #1	CHILLIWACK: Hwy. #1 at Yale Road West	Construct interchange to eliminate existing level crossing on freeway.	32,500 (Hwy #1)	49,400			1.18	Corridor Mobility Supports Community Growth Safety	D C	0.1 4.0		
H2	Fraser Bridge and Approach Upgrading	HOPE: Hwy. #1 crossing of the Fraser River	Upgrade bridge (widen, overlay deck); realign approaches including junctions at Haig Station Road, Landstrom Road and Ross Road.					4.57	Corridor Mobility Safety	D C	0.3	12.0	
H3	Chaumox Road: Improvements	NORTH BEND: (km 2.9 - km 14.6)	Upgrade 11.7 km of road, including: widening, realignment (bypass farm), drainage improvements (replace 3 bridges with multiplate culverts), and gravelling.						Safety Supports Tourism Supports Industrial Growth (traffic includes 150 logging trucks/day and talc mine trucks) (See Appendix)	P,D C	0.2	3.0	
H4	Annis Road Interchange/ Highway #1: Improvements	CHILLIWACK: Hwy. #1 at Annis Road/Hwy. #1: Annis Road to Hwy #9	Construct interchange to eliminate existing level crossing on freeway. Reconstruct 6 km of Hwy #1, including section near power lines at Popkum. Construct 1 km of frontage road, extending to Hack-Brown Road.	23,100 (Hwy #1)	35,000				Safety Corridor Mobility Supports Community Growth	D C	0.2 4.0	6.0	6.0
H5	Young Road: Improvements	CHILLIWACK: Prairie Central Road to Hope River	Upgrade 4 km of road including widening to four lanes.	9,000	15,000			5.7	Reduce Downtown Congestion Journey to Work	D C	0.2 4.2		
H6	Kawkawa Lake Road - Coquihalla River Bridge	HOPE	Existing structure is deficient in terms of withstanding frequently occurring flood flow conditions. Redesign of the structure is required prior to next washout; realignment of north east approach is also necessary.						Washout concerns Safety Supports Community Growth	D	0.1		
H7	Highway #3: Improvements	Highway #3: from km 28 (east of Hope) to km 58 (summit)	Upgrade 30 km of existing highway, eliminate hazardous "21 Mile" curve	6,700	9,700			2.17 (21 mile)	Corridor Safety	D C	0.8	10.0	9.0
H8	Vedder Road: Improvements	CHILLIWACK: Chilliwack Lake Road to Highway #1	Upgrade approximately 5.5 km of road, including widening to 4 lanes and left turn channelization.	20,000	30,000			4.5	Supports Local Growth Supports Tourism	P,D C	0.13	2.5	
H9	Rockwell Drive/Provincial Park Access Road: Improvements	HARRISON HOT SPRINGS to Sasquatch Park	Upgrade road including minor widening and realignment; provide bicycle path; preserve right-of-way.						Safety Supports Tourism	D C	0.2	2.5	
H10	Fraser Canyon Highway: Improvements	Highway #1: Emory Creek to Jackass Mountain	Widen existing highway to 3 or 4 lanes wherever possible without rock cuts; construct curb and gutter in Yale and Boston Bar.	4,600 - 5,700	7,400			2.42 (Ferrabee Tunnel)	Corridor Mobility Safety Supports Tourism Enhance View Points	D,C	0.5	2.0	8.0

SHORT TERM PLAN: 0-5 YEARS IMPLEMENTATION

Table 4.1

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF FRASER-CHEAM

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC 1987	TRAFFIC 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC.* RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH (1st year)	MEDIUM (2nd-3rd years)	LOW (4th-5th years)
H11 Vedder Road Interchange at Highway #1: Improvements	CHILLIWACK: Highway #1 at Vedder Road	Upgrade existing overpass to 4 lanes	25,600 (Vedder Rd.)	36,900			1.4	Corridor Mobility Supports Community Growth	D,C	0.1	4.7	
H12 Various "small but safety critical" Highway Projects	Regional District of Fraser-Cheam: (various locations)	• Highway #9: Left turn channelization - construct left turn lanes in Agassiz (Hwy. #9) area.	7,300	10,500				Corridor Mobility Safety				
		• Highway #1 W/B exit at Old Yale Road (Floods area) - construct off ramp	—	—	—	—		Corridor Mobility Safety				
		• Highway #1 W/B on ramp improvement at Floods - realign on ramp						Corridor Mobility Safety				
		• Boston Bar: turn lanes on Highway #1 - construct designated turn lanes	4,600 - 5,700 (Hwy. #1)	7,400				Corridor Mobility Safety Supports Tourism	D C	0.8	2.0	2.0
		• Hope: railway crossings - improve crossings at Third Ave. and Sixth Ave.						Safety				
		• Dogwood Valley Frontage Roads extend frontage roads to eliminate turns off Highway #1.						Safety Corridor Mobility				
		• Juleth Road Extension - extend Juleth Road approximately 1 km to tie in to Popkum Road	—	—	—	—		Supports Local Growth				
		• Highway #1: Improved access for logging trucks turning to/from Spuzzum Creek drainage.						Corridor Mobility Safety				
H13 Morris Valley Road: Improvements	HARRISON MILLS: from south of Pretty Creek past the wetlands (km 1.7 - km 12.5)	Realign, reconstruct, widen and pave at various locations (fills and rock cuts required)						Supports Tourism, Recreation Supports Industrial Growth (Logging traffic)	D C	0.3	2.0	3.0
H14 Vedder Road - Chilliwack River Bridge	CHILLIWACK: Vedder Road at the Chilliwack River	Construct new 4 lane bridge or twin existing 2 lane bridge, improve approaches and intersection at Chilliwack Lake Road, identify and acquire rights-of-way.	9,000	15,000			6.0	Safety Supports Growth Supports Tourism	P,D C	0.5	5.0	4.0
H15 Union Bar Road - Sucker Creek Crossing	HOPE	Replace culvert; upgrade approaches.						Safety Supports Industrial Growth (logging traffic)	D,C	0.3		
H16 Evans Road: Improvements	CHILLIWACK: Stevenson Road to Highway #1	Upgrade road, widen to 4 lanes	2,000	5,000			2.3	Supports Community Growth	D,C	0.1	2.5	
H17 Hemlock Valley Road: Improvements	HARRISON MILLS	Pave 10 km of Upper Levels Road; eliminate existing Bailey Bridge.						Safety Supports Tourism Reduced Maintenance Costs	P,D C	0.2	1.2	2.0
H18 Columbia Valley Highway: Improvements	CULTUS LAKE	Upgrade alignment at Marina Corner/ Edmeston Road intersection.						Safety Supports Tourism	D,C	0.3		

SHORT TERM PLAN: 0 5 YEARS IMPLEMENTATION

Table 4.1

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF FRASER-CHEAM

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC 1987	TRAFFIC 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC.* RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH (1st year)	MEDIUM (2nd-3rd years)	LOW (4th-5th years)
H19 Highway #9/Miami River Crossing: Improvements	HARRISON HOT SPRINGS	Replace existing culvert with large culvert or new bridge						Supports Tourism (widens route to major tourist attraction)	D,C	0.7		
H20 Bicycle Access to Road System	Several locations including Agassiz Bridge, Hot Springs Road and Cultus Lake Road	Widen roads to allow bicycle access, separate right-of-way where possible	.....	.....	.....	.....		Safety Supports Tourism Strong Community Concerns	D C	0.2 1.0	1.0	1.0
H21 Evans Road Overpass/ Ashwell Road Improvements	CHILLIWACK: Highway #1 to Hodgins Road	Plan and design overpass at Hwy #1 and "Chilliwack to Sardis Connector" - approximately 3 km	.....	.....	.....	.....		Supports Residential Growth	P,D		0.5	
H22 Yarrow Central Road/ Vedder Mountain Road Improvements	CHILLIWACK: Boundary Road to Vedder Road - Chilliwack River Bridge	Major access to Cultus Lake Upgrade approximately 9 km of road	5,000	7,500			2.4	Supports Growth Supports Tourism	D,C	0.1	1.0	1.0
H23 Promontory Hill: Road Improvements	CHILLIWACK: Promontory Road Vedder Road to Teskey Road, Prest Road: Bailey Road to Jinkerson Road, Jinkerson Road: Prest Road to Promontory Road		2,000	25,000			0.5	Supports Community Growth	D C	0.4 3.5	3.5	
H24 Highway #9/Yale Road East Interchange	CHILLIWACK/POPKUM	Install traffic signals immediately, construct interchange in longer term						Corridor Mobility Safety	D C		0.2	4.1
H25 Yale Road East: Improvements	CHILLIWACK: McNaught Street to Highway #9	Widen approximately 13 km of road to 4 lanes	3,000	10,000			1.6	Supports Community Growth	P,D C	0.4	4.0	4.0
H26 Fraser River Bank Erosion Control	HOPE: Highway #1/Water Avenue on Fraser River	Construct river bank erosion control system	.....	.....	.....	.....		Safety Corridor Benefit	P,D,C	1.1		
H27 Keith Wilson Road - Vedder Canal Bridge	CHILLIWACK	Replace temporary Bailey Bridge crossing of Vedder Canal with a new bridge						Safety Supports Community Growth	D,C		1.1	
H28 Yale Road West: Improvements	CHILLIWACK: Atchelitz Road to Vedder Road	Upgrade approximately 2 km of road							D,C			0.6
A1 Hope Airport Improvements	HOPE	Pave one of two parallel runway strips and install instrument landing system	.....	.....	.....	.....		Safety Supports Growth Reduces Maintenance Costs	D,C	3.0		
								SHORT TERM PLAN SUB-TOTALS		27.9	66.7	44.7
								TOTAL			139.3	

*Accidents per million kilometres of travel

Table 4.2

LONG TERM PLAN: TO YEAR 2000

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF FRASER-CHEAM

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC		LEVEL OF SERVICE		ACC * RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY		
			1987	2000	1987	2000				HIGH	MEDIUM	LOW
H29 Highway #1 Junction Improvements	HOPE: Highway #1 Junction with Highway #'s 3/5	Improve existing interchange layout, eliminate traffic signals on Highway #1	9,500	13,700				Safety Corridor Mobility	P,D,C		5.0	
H30 Floods Area Road Improvements	FLOODS: near Hope Airport/ Whonnock Industries	Upgrade road including widening and paving						Supports Growth	P,D,C		0.5	
H31 Highway #9: Hot Springs Road Widening	Agassiz to Harrison Hot Springs	Upgrade road, including widening, realignment and paving						Safety Supports Tourism (access to major tourist area)	D,C		1.0	
H32 Young Road/Rail Grade Separation	CHILLIWACK: Young Road crossing of CN Rail tracks	Acquire Right-of Way, construct grade separation to eliminate existing level crossing	10,000	12,500			1.4	Journey to Work Supports Growth Safety	D,C		7.0	
H33 Highway #9: Relocation and Grade Separation	AGASSIZ	Relocate Highway #9 away from the town centre (approximately 3 km relocation), construct grade separation with CP Rail						Safety Corridor Mobility	P,D,C		10.0	
H34 Chilliwack Mountain Road/ Wolfe Road/Hodgins Road Improvements	CHILLIWACK: Highway #1 to Yale Road East	Upgrade road, including widening, realignment and pavement	8,000	10,000			0.6	Supports Growth	P,D,C		4.7	
H35 Morris Valley Road - Chehalis River and Weaver Creek Bridge Improvements	HARRISON MILLS: Morris Valley Road crossings of Chehalis River and Weaver Creek	Replace bridges over Chehalis River and Weaver Creek						Supports industrial growth (logging access)	D,C		15.0	
H36 Gazette Jones Lake Road	LADNER: Beside Waiseach Creek	Acquire Rights of Way						Supports Growth Supports Tourism	P		0.1	
H37 Dedicate Coquihalla Lakes Frontage Road	COQUIHALLA							Supports Growth Supports Tourism	P,D,C		n/a	
H38 Chilliwack River Valley Alternate Access	Chilliwack River Valley	Planning for a second route into the upper end of the Chilliwack River Valley	----	----	----	----		Supports Tourism, Recreation Supports Growth	P,D		n/a	
H39 Alternate Route to Columbia Valley	CHILLIWACK: Cultus Lake Area	Establish new access to the Columbia Valley over south west end of Vedder Mountain	----	----	----	----		Supports Tourism, Recreation (Relieves dead-end congestion in major tourist area)	P,D		n/a	
H40 Highway #7: Relocation	KENT: At the base of Mount Woodside	Relocate Hwy #7 from up on the hill to the bottom of Mount Woodside beside the Fraser River (and R/R)					2.29	Safety Corridor Mobility	P,D,C		n/a	
T1 Commuter Transit	Hope to Vancouver	Provide commuter transit service from Fraser-Cheam Regional District to Vancouver	----	----	----	----		Corridor Supports Growth Supports Tourism	P		n/a	
H6 Kawkawa Lake Road - Coquihalla River Bridge	HOPE	Construct new bridge and realign north east approach (as designed in Short Term Road Design Project).						Supports Residential Growth Safety (potential washout)	C	1.5		
H21 Evans Road Overpass/ Ashwell Road Improvements	CHILLIWACK: Highway #1 to Hodgins Road	Construct overpass at Highway #1 and "Chilliwack to Sardis" connector - approximately 3 km	----	----	----	----		Supports Community Growth	C		10.5	

*Accidents per million kilometres of travel

Table 4.3

SUMMARY OF PROPOSED INITIATIVES

REGIONAL DISTRICT OF FRASER-CHEAM

INITIATIVE TITLE	PROBLEM OPPORTUNITY	ACTION PROPOSED
Highway Classification and Standards	Conflicting classification definitions create inconsistencies in establishing road standards and access control.	A common set of road standards and definitions should be agreed upon and adhered to by all levels of government and administration.
Hazardous Goods Transportation Routing	Hazardous cargo is being transported along various corridors throughout the Region.	Address the issue of the designation of dangerous cargo truck routes. (See Chapter 8).
Ensure response to spills of dangerous cargoes	Local help agencies need local expertise and funding.	Encouragement and funding of local Search and Rescue groups to respond to transportation disasters such as dangerous cargo spills and road closures due to earthquake and other natural disasters. (See Chapter 8).
Pedestrian/Bicycle Access to Road System	There is strong community support for development of a road system that is accessible to pedestrians and bicycles.	Designated roads/bridges should be upgraded to allow safe pedestrian/bicycle use.
Public Transit Improvements Commuter Buses/Public Parking	Public interest has been expressed for improved transit, including additional access to inter-city buses, and expanded local transit for both the general public and special needs users.	The public transit system should be upgraded to improve service for people travelling within the Regional District, for commuters travelling to/from Vancouver, and for those requiring paratransit service. Public parking facilities should be provided at interchanges to promote car pooling and use of express buses.
Rights-of-Way Acquisition	Key transportation corridors can be lost to development if not identified and protected on a long term basis.	Land should be purchased or reserved for those corridors where future rights-of-way requirements have been identified.

INITIATIVE TITLE	PROBLEM/OPPORTUNITY	ACTION PROPOSED
River Transportation	Optimize waterways for the transportation and sorting of logs.	Maintain channels and legislation to ensure future use of waterways for transportation.
Co-ordination of Transportation Planning and Forestry Harvest Planning	Logging truck volumes associated with forestry harvest operations have significant impact on the highway system.	Closer communication between the Ministry of Highways, Ministry of Forests and local government should be achieved at the planning and design stage to evaluate the impact of industrial operations on transportation planning.
Resolution of corridor versus local access function	Safety	A policy review is required to resolve the conflict between the corridor function and the local access function concepts for various routes.
Travel Data Collection	Difficult to establish improvement priorities without technical substantiation.	Collect, collate and disseminate regular travel data (traffic counts, accident frequency, etc.) at project locations identified in Tables 6.1 and 6.2.
Information and project signing	Inadequate information to travellers on road closures and on route choices.	Adequate planning with local communities before road closures or route changes are made. Better information signs on main roads.
Upgrade weather reporting and airport instrument flying capabilities	Existing weather information facilities are limited - locations proposed for new or upgraded facilities include: Fraser Canyon, Coquihalla Pass and Alison Pass, Chilliwack and Hope Airports.	Increase the number and quality of weather reporting stations to enhance non-scheduled commercial and private flying as well as road maintenance operations.

5.0 GREATER VANCOUVER REGIONAL DISTRICT

5.0 GREATER VANCOUVER REGIONAL DISTRICT

5.1 Population Forecasts

The strong growth in Greater Vancouver's present population of about 1,400,000 is projected to continue during the 1990's as the result of natural increase and migration to the region from other parts of Canada and other countries. The regional population is expected to reach approximately 1,725,000 by the year 2001.

Although all parts of Greater Vancouver will experience population growth during the next 12 years, more than 60% of the growth will occur in the suburbs in the eastern part of the region, particularly the municipalities south of the Fraser River. Growth in the Burrard Peninsula municipalities will represent approximately 20% of the regional population increase.

The increase in population by subregion is given in Exhibit 5.1(a).

5.2 Employment Forecasts

Greater Vancouver's employed labour force is forecast to increase from 665,000 in 1986 to approximately 935,000 in 2001. Service sector employment is estimated to represent nearly 80% of the growth. While job growth will increasingly be dispersed throughout the region, downtown Vancouver will remain as the major concentration of employment and it is estimated that nearly 40% of regional job growth will be located on the Burrard Peninsula.

The increase in employment by subregion is given in Exhibit 5.1(b).

5.3 Recommendations

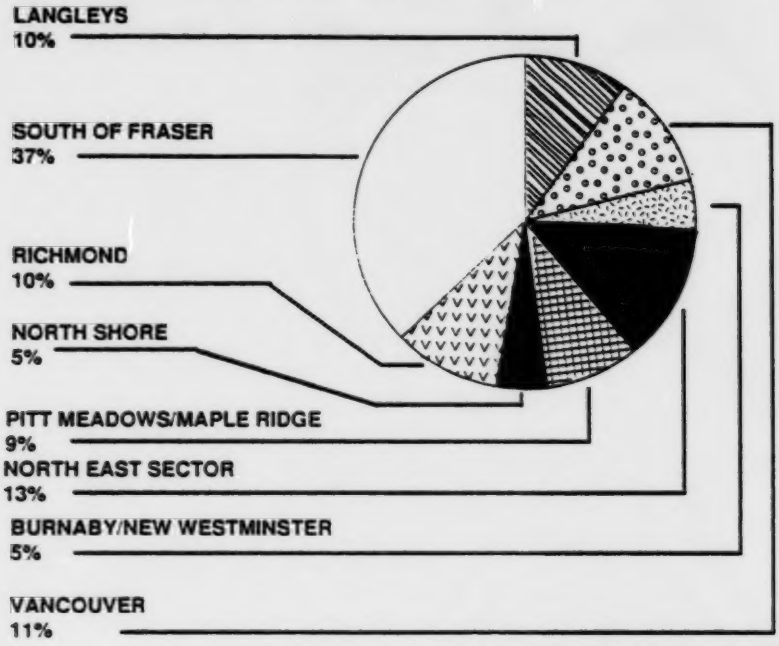
The following are the recommendations of the Greater Vancouver Transportation Task Force resulting from Phase I of the transportation study undertaken for the region:

5.3.1 Government Policy

1. That the Provincial Government establish an ongoing transportation planning process for Greater Vancouver involving all orders of government and all modes of transport.

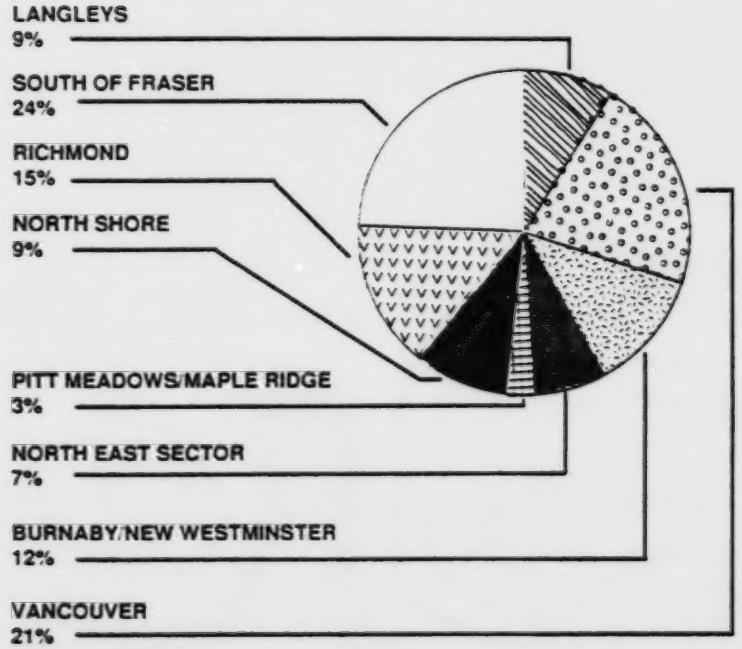
2. That the Provincial Government establish a single capital budget process for improving both the road and transit systems in Greater Vancouver.

GREATER VANCOUVER
POPULATION GROWTH



GVRD POPULATION GROWTH
1986-2001
EXHIBIT 5.1 (a)

GREATER VANCOUVER
EMPLOYMENT GROWTH



GVRD EMPLOYMENT GROWTH
1986-2001
EXHIBIT 5.1 (b)

3. That the Provincial Government recognize in its funding policies that rapid transit systems are the equivalent of provincial arterial highways and apply to the financing of existing and proposed rapid transit facilities, the same principles used to finance the construction of highways.

4. That the Provincial Government consider all components of the recommended transportation plan to be of regional significance and therefore the cost of each should be fully funded on the same basis as provincial highways.

5. That the Provincial Government examine revisions to the Revenue Sharing Program for municipal roadway assistance with a view to simplifying the criteria, providing earlier notice of funding and improving the equitability and year-to-year consistency of funding levels.

6. That the Provincial Government consider increased used of transportation consumption taxes such as fuel taxes and license fees as a means to manage the demand for transportation improvements and to fund needed improvements.

7. That the Provincial Government encourage the three port authorities in the Lower Mainland to produce a coordinated port development strategy and to plan for the Greater Vancouver region as a guide for provincial and municipal programs to provide and protect road and rail access to port installations.

8. That the Provincial Government request the Government of Canada to initiate a formal environmental impact assessment study of the airside capacity improvements proposed for Vancouver International Airport.

9. That the Provincial Government request the Government of Canada to prepare a strategy for longer-term development of airport infrastructure in the Lower Mainland.

5.3.2 Improvements to Public Transit

10. That the B.C. Transit give priority to completing the detailed planning with a view to achieving the earliest possible introduction of a rapid transit service between downtown Vancouver and the Richmond Town Centre.

11. That B.C. Transit begin the detailed planning of the extension of the existing SkyTrain service to Coquitlam Town Centre via Lougheed Centre in two phases in order that such a service can be in operation within the 1996 - 2001 time period.

12. That the proposed commuter rail service linking Port Coquitlam to downtown Vancouver using CP Rail tracks not be implemented so that priority can be given to more cost-effective steps to address the transportation needs of the North-east sector.

13. That the Vancouver Regional Transit Commission be encouraged to pursue vigorously its objective of achieving an increase in transit's share of the modal split throughout the region, particularly during the morning and evening peak periods.

14. That the Vancouver Regional Transit Commission consider alternative means of encouraging the use of transit for short distance travel in downtown Vancouver and the Regional Town Centres.

15. That the Provincial Government coordinate a review with appropriate agencies of the possibilities for the expanded use of taxis for paratransit and custom transit services.

16. That the Provincial Government, in cooperation with local municipalities and private developers and/or parking facility operators, establish park-and-ride facilities at:

    (a) Phibbs Exchange
    (b) Capilano Road & Marine Drive
    (c) Metrotown Station
    (d) South Surrey
    (e) Westminster/No. 3 Rd. Station
    (f) Coquitlam Town Centre
    (g) Lougheed Mall
    (h) East Guildford
    (i) 22nd Street Station
    (j) North Delta

17. That B.C. Transit establish new transit exchanges at Coquitlam Town Centre, Scottsdale Mall and White Rock/South Surrey.

18. That B.C. Transit request Greater Vancouver municipalities to consider applying parking restrictions and other traffic management measures during peak periods in both directions on all sections of municipal arterial roads that are used as major bus routes, that is, have 15 or more buses per hour in the peak direction.

19. That B.C. Transit purchase a minimum of 20 articulated buses and 20 standard buses in each of the years 1990 to 1996 to be used to increase the level of service in Greater Vancouver, particularly on commuter routes. This is in addition to the 170 buses required to replace those vehicles that need to be retired.

5.3.3 Committed Transportation Network Improvements

A number of improvements to the road and transit networks have already been committed for construction by the end of 1991 by either the Ministry of Transportation, B.C. Transit, or individual municipalities. These improvements which are listed below were therefore assumed to be in place in the analysis and not considered as candidate projects.

The committed projects are as follows:

- Alex Fraser Bridge (Highway 91) widening to 6 lanes
- Braemar-Dempsey Connector (North Vancouver)
- Broadway widening to four lanes between North Road and Gaglardi Way (Burnaby)
- Cassiar Connector (Highway 1)
- George Massey Tunnel bus priority access to tunnel portal
- Highway 17 Causeway widening (Delta)
- Highway 91/Highway 91A interchange grade separation
- Lonsdale/Highway 1 and Westview/Highway 1 interchanges
- Mariner Way/Johnston Street overpass (Coquitlam)
- Marine Way - 10th Avenue Connection (Burnaby)
- Mary Hill By-Pass widening to four lanes from Lougheed (Coquitlam)
- Nordel Way extension to 116th Street (Delta)
- Richmond Expressway completion between Highway 91 and 99
- Royal Avenue widening to four lanes between Columbia St. and Eighth Street (New Westminster)
- Scott Road widening to four lanes between Yale and Grace and between 80th Avenue and Highway 10 (Surrey/Delta)
- Sea to Sky Highway
- Shell Road extension from Alderbridge Way to Westminster Highway (Richmond)
- SkyTrain extension across the Fraser River to Scott Road and on to Whalley
- No. 2 Road Bridge across the Fraser River Middle Arm (Richmond)
- 200th Street widening to four lanes Highway 10 to Highway 1 (Langley)

5.3.4 Roadway Network Improvements 1991-1996

20. **Road Upgradings:** that the provincial government begin the next stages of planning for upgrading the following existing facilities before the end of 1996:

    (a) widening of the deck of the Second Narrows Bridge to eight lanes;

    (b) widening of Highway 1 together with associated improvement of the grade-separated interchanges and access roads between the Lynn Creek and the Second Narrows Bridge;

    (c) widening of Highway 1 to eight lanes and associated construction or improvement of grade-separated interchanges and access roads between First Avenue and the west end of the Port Mann Bridge, including a direct westbound on-ramp from the Mary Hill Bypass;

    (d) widening of Barnet Highway to four lanes between Clarke Road and Hastings Street;

    (e) selective widenings and intersection treatments on Hastings Street between Barnet Highway and Boundary Road to achieve three through lanes in each direction;

    (f) reconstruction of the existing interchange at the north bridgehead of the Queensborough Bridge;

    (g) widening of the George Massey Tunnel to six lanes by constructing a new two-lane tube;

    (h) widening of Highway 99 between the tunnel and the Richmond Freeway together with additional improvements to maximize the utilization of the expanded tunnel;

    (i) widening of Front Street to two lanes between Sixth Street and Columbia Street and of Columbia Street to six lanes between Front Street and Brunette Avenue;

    (j) widening of Highway 10 to four lanes between Scott Road and the Langley Bypass and between the Langley Bypass and the Highway 1 interchange at 232nd Street;

    (k) widening of River Road and/or the construction of the proposed River Way to four lanes between Highway 99 and Nordel Way;

(l) widening of Knight Street Bridge to six lanes and replace the existing ramps to Mitchell Island from this bridge with a new bridge to the island directly off Marine Drive;

(m) widening of 72nd Avenue to four lanes between Highway 91 and Scott Road;

(n) provide left turn treatments on arterial roads of regional significance at all signalized intersections; and

(o) upgrade Highway 17 to full freeway standard by eliminating all at-grade intersections.

21. **New Facilities:** That the Provincial Government begin the next stage of planning in order to have the following new facilities in operation before the end of 1996:

(a) interchange on Highway 91A at Boyd Street;

(b) interchange on Highway 91 at Hamilton Road and 72nd Avenue;

(c) four-lane Port Moody Bypass linking Barnet Highway north of St. Johns Street to Barnet Highway in the vicinity of Ioco Road;

(d) railway grade separations on Highway 10 (on the Langley Bypass) and on the Fraser Highway;

(e) Grandview Cut between Renfrew Street and Clarke Street, together with the upgrading of the connection between Highway 1 and the east end of Grandview Highway;

(f) Stormont-McBride Connector;

(g) interchange on Highway 1 at 216th Street;

(h) direct freeway connection between Highway 17 and Highway 99;

(i) Low Level Road on the North Shore between Main Street at Third Avenue in North Vancouver and Marine Drive west of Park Royal in West Vancouver; and

(j) North Perimeter Industrial Road in Delta and Surrey between River Road at Nordel Way and Highway 1 at 176 Street.

22. **Transit Priority Measures:** That the Provincial Government implement or request the appropriate municipalities to implement the following improvements to the road network in order to provide increased priority to transit vehicles using the roadway system:

(a) bus only lanes both southbound and northbound on Highway 99 on the approaches to the George Massey Tunnel;

(b) bus priority measures in both directions on Hastings Street between Boundary Road and downtown Vancouver in the peak periods;

(c) direct access from the Phibbs Exchange to the Second Narrows Bridge;

(d) bus only lane or equivalent priority measure for buses on Highway 91 approaching the Alex Fraser Bridge northbound;

(e) queue jumper for vehicles accessing the Barnet Highway from St. Johns Street;

(f) queue jumper lane on the new McGill Street - Second Narrows Bridge ramp for buses travelling between downtown Vancouver and the North Shore;

(g) bus priority measures in both directions on Broadway between Cambie Street and Arbutus Street in the peak periods; and

(h) bus priority measures in both directions on Granville Street between 16th Avenue and the Granville Street Bridge in the peak periods.

5.3.5 Road Improvements 1997 - 2001:

23. That the Provincial Government undertake the necessary steps in order to have the following new or improved facilities in operation as components of the road network within the period 1997-2001:

(a) widen or twin the Port Mann Bridge to provide an additional four lanes;

(b) widen Highway 1 to six lanes between Lynn Creek and Capilano River;

(c) widen Highway 1 from Port Mann Bridge east to 152nd Street to eight lanes and further east to 200th Street to six lanes;

(d) widen Lougheed Highway to six lanes between Boundary Road and Barnet Highway;

(e) grade separate the junction of the Arthur Laing Bridge, Russ Baker Way and Miller Road;

(f) widen Fraser Highway to four lanes to Highway 10;

(g) interchange on Highway 99 at 152nd Street or 24th Avenue, providing improved access to South Surrey and White Rock;

(h) construct new railway grade separation in Langley on 200th Street; and

(i) construct a new road connecting Lions Gate Bridge to Highway 1.

5.3.6 Longer Term Facilities: Exhibit 6.2

24. That the following proposals be examined in the longer-term planning of municipalities and the provincial transportation agencies:

(a) a new Cambie Street Bridge across the Fraser River North Arm connecting Highway 99 to Cambie Street at Marine Drive;

(b) a new freeway link connecting Richmond Freeway to highway 1 along the line of Boundary Road with a new bridge across the Fraser River North Arm;

(c) a new freeway link connecting Highway 99 to the Richmond Freeway with a new bridge across the Fraser River South Arm along the line of 72nd Street in Delta and Number 8 Road in Richmond;

(d) an extension of the Grandview Cut west across the existing railway yards to connect directly to the Georgia and Dunsmuir Viaducts;

(e) new freeway linking Highway 99 in Surrey to Highway 1 in Langley;

(f) a new bridge at either end of David Avenue to extend it to the west across Burrard Inlet and to the east into Pitt Meadows; and

(g) a new waterfront road along the south shore of Burrard Inlet connecting the Barnet Highway in Burnaby to downtown Vancouver.

25. That the Provincial Government and municipalities ensure that all abandoned rail corridors are considered for possible future use in the transportation network.

5.3.7 Inter-regional Facilities:

26. That the following transportation projects be noted as being of importance to neighbouring Regional Districts and hence having implications for Greater Vancouver;

    (a) constructing a new bridge crossing of the Pitt River connecting Pitt Meadows to the Mary Hill Bypass;

    (b) improving the Sea to Sky Highway between Horseshoe Bay and Lillooet via Squamish;

    (c) constructing a new bridge crossing of the Fraser River connecting Maple Ridge to Langley; and

    (d) upgrading 16th Avenue or 24th Avenue between Abbotsford and Highway 99.

5.3.8 Other Matters

27. That the report of the Goods Movement Working Group be referred to municipal Councils as a guide to municipal policy-setting relating to urban goods movement.

28. That the Provincial Government take the leadership role in establishing a goods movement council for Greater Vancouver.

29. That representatives from the federal and provincial transportation ministries review and promulgate the protocols for grade separations for both federal and provincial railways, in order to ensure equitability of funding for grade separation.

30. That the Provincial Government develop measures to ensure that truck safety, weight limit, noise and fume emission standards are enforced.

31. That the Greater Vancouver municipalities jointly investigate measures to control vehicle traffic through residential neighbourhoods.

32. That municipal, regional and provincial transportation planning agencies consult more fully with representatives of cycling associations in Greater Vancouver, with a view to the better integration of cyclists' needs into the overall transportation planning process.

GREATER VANCOUVER REGIONAL DISTRICT

RECOMMENDED ROAD
NETWORK IMPROVEMENTS TO 2001

EXHIBIT 6.1

GREATER VANCOUVER REGIONAL DISTRICT

OTHER ROAD NETWORK FACILITIES

EXHIBIT 6.2

GREATER VANCOUVER REGIONAL DISTRICT

RECOMMENDED TRANSIT
NETWORK IMPROVEMENTS TO 2001

EXHIBIT 6.3

Table 5.1

RECOMMENDED ROAD NETWORK IMPROVEMENTS TO 2001 (EXHIBIT 6.1)

FACILITY	ACTION	SEGMENT	NO. OF LANES
Highway 1	Widen	2nd Narrows Bridge	8
	Widen	2nd Narrows - Lynn Creek	8
	Widen	Lynn Creek - Capilano Road	6
	Widen	1st Ave. - Port Mann	8
	New	Stormont - McBride Connector	4
	New	Westbound on-ramp from Mary Hill Bypass	4
	Widen/New	Widen or Twin Port Mann Bridge	4
	New	Port Mann - Lougheed North Connector	2
	Widen	Port Mann - 152 St.	8
	Widen	152 St. - 200 St.	6
	New	216 St. Interchange and Connectors	4
Lions Gate Bridge	New	Connector from Bridgehead - Hwy. 1	4
Lougheed	Widen	Boundary Road - Barnet Hwy.	6
Barnet Hwy.	Widen	St. Johns St. - Hastings St.	4
	New	Port Moody Bypass	4
Hastings St.	Widen	Barnet Hwy. - Boundary Rd.	6
Highway 10	Widen	Scott Rd. - 192 St.	4
	Widen/New	Langley Bypass - 232 St. Interchange	4
	New	Railway Grade Separation (Langley Bypass)	4
Highway 17	New	Direct connection to Highway 99 East	4
	Upgrade	Freeway Standards	
Fraser Highway	Widen	King George Hwy. - 176 St.	4
	New	Railway Grade Separation (Langley)	4
200th St.	New	Railway Grade Separation	4
Highway 91	New	Interchange at Hamilton St.	
	New	Interchange at 72nd Ave.	
Highway 91A	New	Interchange at Boyd St.	
	Upgrade	Interchange at Queensborough Bridgehead	
Highway 99	Widen	George Massey Tunnel	6
	Widen	Tunnel - Richmond Freeway	6
	New	Interchange at Blundell Rd.	
	New	Interchange at 152 St. or 24th Ave	
Granview Cut	Upgrade	Highway 1 - Grandview	4
	Widen	Boundary - Slocal	6
	New	Slocan - Clarke Drive	4
Low Level Road	Widen/New	Main St. - Marine Drive	4
North Perimeter Rd	New	Nordel Way - Highway 1	4
Knight St. Bridge	Widen	Bridgeport Rd. - Marine Dr. & Intersections	6
Mitchell Is. Access	New	Bridge and approaches from Marine Drive	2
Front Street	Widen	6th St. - Columbia St.	2
Columbia St.	Widen	Brunette - Front	6
Arthur Laing Bridge	New	Interchange at Russ Baker/Miller Road	2
River Road/River Way	Widen/New	Highway 99 - Nordel Way	4
72nd Ave.	Widen	Highway 91 - King George Hwy.	4

Rev. 2

Table 5.2

RECOMMENDED TRANSIT NETWORK IMPROVEMENTS TO 2001 (EXHIBIT 6.3)

Rapid Transit	. Vancouver to Richmond
SkyTrain Extension	. To Coquitlam Town Centre via Lougheed Mall
Bus Lanes	. Highway 99 Northbound and Southbound to the George Massey Tunnel . Highway 91 northbound to Alex Fraser Bridge . Hastings St. between Boundary Rd. and Vancouver's CBD . Broadway between Cambie Street and Arbutus Street . Granville Street between 16th Avenue and the Granville Street Bridge
Bus Priority Measures	. Direct access from Phibbs Exchange to Second Narrows Bridge . Queue jumper for vehicles accessing the Barnet Highway from St. John's Street . Queue jumper for buses on McGill Street ramp at approach to Second Narrows Bridge
SeaBus Service	. Addition of a back-up vessel
Upgraded Bus Service	. All areas of Surrey to Scott Road and Whalley Stations South Delta and Richmond to new Richmond LRT Stations . Port Coquitlam and Coquitlam to Vancouver's CBD and to New Westminster Station prior to opening of the SkyTrain extension to Coquitlam Town Centre . North Shore to SeaBus Terminal . North Shore to Phibbs Exchange and Vancouver's CBD
Park and Ride Facilities (at grade or multi-level)	. Phibbs Exchange . Capilano & Marine Drive . East Guildford . South Surrey . Westminster No. 3 Road Station . Coquitlam Town Centre . Lougheed Mall . Kootenay Loop or P.N.E. . 22nd Street Station . Metrotown Station . North Delta
Trolley Extensions	. Broadway Express Lane . Burrard Bridge . East Hastings
Transit Exchanges	. Coquitlam Town Centre . Scottsdale Mall . White Rock/South Surrey

COMMUNITY ADVISORY COMMITTEE COMMENTS

A SUMMARY OF COMMENTS

made by the

COMMUNITY ADVISORY COMMITTEE OF THE MINISTER OF STATE, MAINLAND/SOUTHWEST

on the Summary Report of the

GREATER VANCOUVER TRANSPORTATION TASK FORCE

OVERALL COMMENT:

The general impressions of the Community Advisory Committee were that the Summary Report was technically a thorough documentation of the transportation needs in the Lower Mainland. The report had been prepared in a very short schedule and perhaps more time is required for this exercise, which should also include public comment. The Transportation Task Force had prepared a set of goals and strategies that were compatible with those of the planning and land use strategies for the region. Each of the Greater Vancouver's transportation issues had been considered including public transit, use of private cars and goods movement.

Some committee members felt that insufficient emphasis had been placed on planning the future of public transit in the region and that most of the projects in the 2001 transportation plan appeared to be oriented to improving road needs.

The report does however target, over the next ten years, at changing the current modal split of 90% car and 10% transit to 80% and 20% respectively. Furthermore, a flexible and effective bus system needs an efficient road system on which to operate. Such a system should include provision for exclusive bus operation.

The committee expressed their approval for the implementation of the future road network which shows both the elements of a grid system and the presence of a high capacity spinal freeway (the No. 1 Highway). Such a network, if implemented in a balanced manner with optimum lane configurations, can be readily developed for use with transit and for modern computerized traffic management techniques.

COMMENTS ON SPECIFIC RECOMMENDATIONS DEALING WITH POLICY, TRANSIT IMPROVEMENTS AND SHORT TERM FACILITIES:

8.1.3 The committee strongly endorsed the policy of **funding rapid transit** systems using the same principles as financing highway construction.

8.1.6 The committee was concerned about **increasing consumption taxes** if not directly applied to road improvements.

8.1.8 After many years of discussion, the devolution process
8.1.9 of transferring **the Vancouver International Airport** to a local authority is now underway. The committee felt that the provincial government should not make any requests to the government of Canada that may impede this process.

8.2.10 The committee suggests that any **rapid transit service to Richmond** must include connections to the Vancouver International Airport.

8.2.16 While the committee endorsed the concept of establishing **park-and-ride facilities** at key transit stations, they suggest that such facilities be constructed on crown land and operated under contract by private parking contractors.

In association with the concept of park-and-ride, the committee would like the provincial government to persevere with "shared ride" schemes which would operate from parking lots adjacent to freeways.

8.2.19 The committee wishes to ensure that **new standard and articulated buses** only be purchased when improvements in modal split ratios are confirmed. (i.e., improvements towards the first goal of 80 person trips by car: 20 person trip by transit).

8.3.20 The committee stressed the need for road network improvements to cater to **improved operation of buses** and high occupancy vehicles. In addition, the ability to employ computerized **traffic management techniques** on the region's arterial road system should be incorporated in each new road improvement.

8.3.20 g The committee questioned the need to add only two more lanes to **the George Massey Tunnel**. They suggest a study be initiated to investigate whether more than six lanes are required at the present tunnel location or whether a second tunnel location is more feasible.

8.3.20 k The committee favours the widening of **River Way** over River Road in Delta.

8.3.20 k The committee cautioned the provincial government that
8.3.21 b any interchange treatments at, or of **72nd Avenue** in Delta, are a sensitive issue.

8.3.21 f Similarly, the committee cautions that implementation of the **Stormont - McBride Connector** is a sensitive issue that may only be surrounded if a cut-and-cover section is to be constructed between 10th Avenue and 17th Avenue.

The committee made the following suggestions on Transit Priority Measures:

8.3.22 b Before bus priority measures are employed on **Hastings Street**, consideration should be given to constructing left turn lanes at major intersections.

8.3.22 c Direct bus access from Phibbs Exchange to the **Second Narrows Bridge** should be designed at the same time as the proposed widening of the bridge.

8.3.22 d Bus priority measures on approaches to the **Alex Fraser Bridge** should include such measures at the Queensborough Bridge.

8.3.22 g Bus priority measures on **Broadway** should be extended to Alma Street.

8.3.22 h Bus priority measures on **Granville Street** should be considered for the whole length of the street, from the Granville Street Bridge to Marine Drive.

Comments on the Longer Term Facilities:

8.4.23 a The committee suggested that a study be initiated to investigate providing an additional four lanes to the **Port Mann Bridge** or providing these four lanes at an alternative crossing location.

8.4.23 i
8.5.24 b
8.5.24 d The committee cautioned the provincial government about the sensitivities that surround:

- new approaches to the **Lion's Gate Bridge**;
- a freeway along **Boundary Road**;
- freeway extensions connecting to the **Georgia and Dunsmuir viaducts.**

8.5.24 g The committee suggests that planning a new Waterfront Road along the south shore of Burrard Inlet should be advanced to a short term priority. Some concern was expressed about separating communities from the waterfront.

Comments on Other Transportation Matters:

8.6.32 The committee strongly favours better integration of cyclists' needs into the overall transportation planning process.

8.6.33 A suggestion was made to place the use of public transportation on B.C. Schools' education curricula.

Prepared by John C. Collings, P. Eng.
for the Community Advisory Committee, July 28, 1989

6.0 SQUAMISH-LILLOOET REGIONAL DISTRICT

6.0 SQUAMISH-LILLOOET REGIONAL DISTRICT

The Squamish-Lillooet Regional District is located north of Vancouver, extending from Lions Bay through the Pacific Coast mountain ranges to the Fraser River and the B.C. Interior at Lillooet. It includes the District Municipalities of Squamish, Whistler, Pemberton and Lillooet as well as numerous rural settlements and a large area of rugged mountains.

The economy of the Regional District is based primarily on the tourism and forestry industries, each placing associated demands on the transportation system.

The current population is approximately 30,000 of which roughly one third reside in Squamish. Substantial future growth is projected on the 10 year horizon, contingent on the provision of proper transportation facilities to the area.

The completion of the Microwave Landing System in Pemberton will add impetus to air travel to the Regional district, however the limited road access is a major restriction to future growth.

The key ingredient to a strong tourism-based economy for this area is the paving of the Duffey Lake Road which will complete a circular route to provide one of the most scenic tourist trips in the world, starting up Howe Sound, through Whistler, Pemberton, Lillooet, back through Lytton, the Fraser Canyon, Hope and Vancouver. However, Highway #99, south of Whistler, is still a bottleneck for the whole development.

A strategy for the Regional District's future road improvements described below.

Short Term (0-5 Years)

1. Continue to develop Highway #99 as a scenic route with high tourism potential by providing:

   a) **High capacity to Squamish**

   - Continue to upgrade Highway #99 without undue traffic disruption while maintaining high scenic values.

   - A preliminary analysis of upgrading Highway #99 or selecting an alternative corridor was carried out in 1983. Since that time considerable money has been spent on Highway #99. This has improved its standard considerably. However, most of it is still only two lanes with restricted curvature and it will be very expensive to upgrade to the capacity that will be required into the year 2000.

A definitive study is required using more accurate mapping (1:5000 or 1:2000 scale) to establish comparative costs of:

i) Continuing to upgrade Highway #99 to four lanes with no post barrier, versus

ii) Continuing to upgrade existing Highway #99 to 2-3 lanes in addition to providing 2-3 lanes in Capilano corridor. This would provide an alternative corridor up Capilano while allowing Highway #99 to continue to provide local access and a highly valuable scenic tourist route.

This study needs to be implemented immediately so that action can be taken to improve the capacity and safety of the route from Vancouver through to Whistler, Pemberton, and Lillooet.

b) **Medium capacity to Whistler**

- Culliton Creek to Cheakamus - realign highway and widen to four lanes.

c) **Tourist capacity to Lillooet**

- Whistler to Pemberton - existing adequate for 0-5 years except for Suicide Hill which requires improvements.

- Pemberton to Lillooet - provide a two lane mountain road with a paved surface - and study alternate routes for the Long Term Plan on the Hurley Pass or Highline route.

2. Add more frequent scenic stops.

3. Construct a new route around Britannia to avoid bottlenecks at local accesses.

4. Highway #12 - Lillooet to Lytton and Cache Creek - upgrade alignment to improve safety.

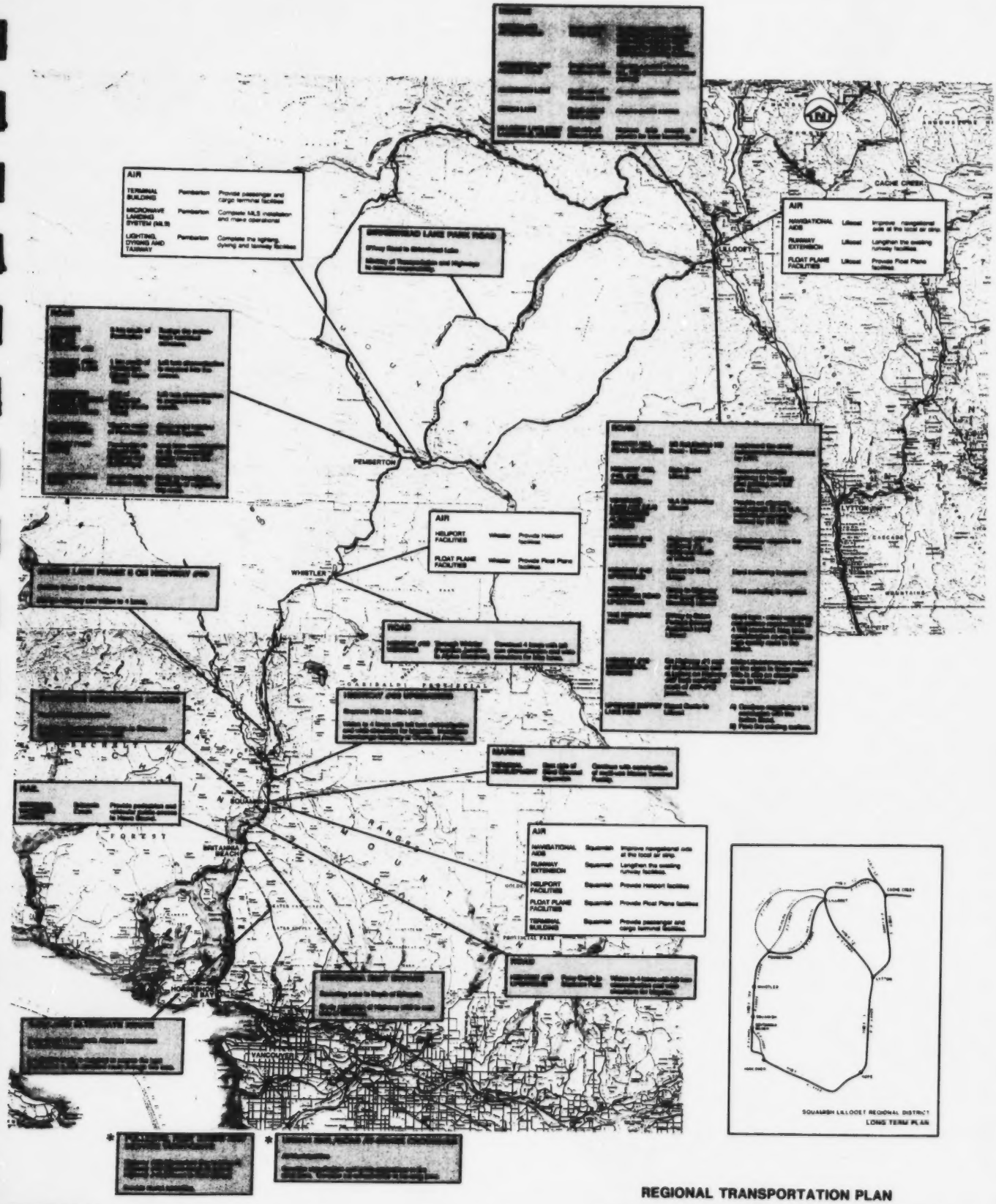
With this circular route in place at the proper standard, the area will grow significantly, attracting tourists from all over the world and hence improving the economic base of British Columbia.

Long Term 5 Years to Year 2000

1. Vancouver to Whistler - 4-lane expressway equivalency.

2. Whistler to Lillooet - 4-lane equivalency. This would be the Duffey Lake Road plus an alternative route on either the Hurley Pass or the Highline, as shown on the key plan Exhibit 1.

The following Exhibit and Tables give a summary of the Squamish-Lillooet Regional District's priority transportation needs.



DELCAN

REGIONAL TRANSPORTATION PLAN

SQUAMISH-LILLOOET REGIONAL DISTRICT

EXHIBIT 1

Table 6.1

SHORT TERM PLAN: 0-5 YEARS IMPLEMENTATION

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF SQUAMISH-LILLOOET

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATIO
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC. RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLION AND PRIORITY HIGH	MEDIUM	LO
ROAD												
H1 Highway #99 and Capilano Corridor Study	Furry Creek to Southern Alternate connection in North Vancouver	A preliminary analysis of upgrading Highway #99 or selecting an alternative corridor was carried out in 1983. Since that time considerable money has been spent on Highway #99. This has improved its standard considerably. However, most of it is still only two lanes with restricted curvature and it will be very expensive to upgrade to the capacity that will be required into the year 2000. A definitive study is required using more accurate mapping (1:5000 or 1:2000 scale) to establish comparative costs of: a) continuing to upgrade Highway #99 to four lanes with no post barriers and b) developing an alternative corridor up Capilano while allowing Highway #99 to continue to provide local access and a highly valuable scenic tourist route	7800 (0.8 km north of Horseshoe Bay)					Supports tourism, industrial and residential growth	P	1.0		
H2 Upgrade Duffey Lake Road	Mount Currie to Lillooet	A) Continue negotiations to conclusion with the Indian Band B) Pave the existing surface	3,500-3540 (MTH projection for improved route)					Supports Provincial tourism and industrial growth, improve safety.	D,C	81.0		
H3 Hurley/Highline Route	Pemberton/Lillooet	Review study on Hurley and Highline routes and select best alternative.							P	X		
H4 Brohm Lake Phase II on Highway #99	Culliton Creek to Cheakamus	Realign highway and widen to 4 lanes	4100 (11.5 km north of Squamish)					Improve safety, promote tourism, industrial and residential growth.	D,C	15.0		
H5 Britannia East Bypass	Browning Lake to South of Britannia	Study relocation of Highway #99 to east side of Britannia						Supports tourism, residential and industrial growth.	P	0.1		
H6 Highway #99 Widening	Through Whistler (Function Junction to Alpine Meadows)	Add second lane southbound and provide left turn channelization at all intersections. Widen S/B shoulders for bike lane	7200 (0.2 km north of Gondola Parking Lot)					Supports Tourism and Residential Growth. Improve bicycle safety.	P,D,C	8.0		
H7 Highway #99 Upgrading	Shannon Falls to Alice Lake	Widen to 4 lanes with left turn channelization and wide shoulders for bicycles. Investigate interchange feasibility at Cleveland Avenue.						Supports tourism, industrial and residential growth. Improve safety.	P,D,C	20.0		
H8 Highway #99 Widening	Through Whistler (Function Junction to Alpine Meadows)	Construct additional NB lane to complete 4 lane cross section with left turn channelization and wide shoulders for bike lanes.	7200 (0.2 km north of Gondola Parking Lot)					Supports tourism and residential growth, improves bicycle safety.	D,C	8.0		

Table 6.1

SHORT TERM PLAN: 0 5 YEARS IMPLEMENTATION

PROVINCE OF B C TRANSPORTATION PLAN
MAINLAND SOUTH-WEST

REGIONAL DISTRICT OF SQUAMISH-LILLOOET

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H9 Highway #12 Upgrading	Highway #97 to Highway #1, North and South of Lillooet	Completely upgrade the alignment	1300-1700					Improve safety, promote tourism, industrial and residential growth	P,D,C	10 0		
H10 Upgrade Suicide Hill on Highway #99	5 km south of Pemberton	Realign the switchback restricted curvature	1800					Improve safety, promote tourism and industrial growth	P,D,C	6 0		
H11 Highway #99 - One Mile Lake Access	1 km south of Pemberton	Left turn channelization is required on Highway #99 into the access	1800 (on Hwy #99)					Safety improvements Supports tourism	D,C	0 3		
H12 Highway #12 Directional Signing	Highway #1 east of Cache Creek and at Lytton, Hwy #97 both north and south of #97-#12 junction	Make Lillooet more prominent on the signs in these areas This is also an alternate route to Whistler and Vancouver						Supports tourism	C	0 1		
H13 Pemberton Airport Access - Pemberton Portage Road	East of Pemberton (Mount Currie Road)	Left turn channelization is required into the access	2300 (on Pemberton-Portage Road)					Improve safety Supports industrial growth	D,C	0 3		
H14 The Highline Route	D'Arcy to Seton Portage (around Anderson Lake) - Lillooet	Short term - minor upgrading and surface requirements to 4 WD						Improve safety Supports tourism Supports residential and industrial growth	C	1 0		
H15 Hurley River Road	Gold Bridge and Coast Mountain Outdoor School	Provide smooth gravel surface	100					Supports tourism	D,C	2 0		
H16 Highway 99 Upgrading	Furry Creek to Shannon Falls	Widen to 4 lanes with left turn channelization and wide shoulders for bicyclists						Promotes tourism	P D,C	0 2 X		
H17 Pullouts, Rest Stops and Service Viewpoints	Highway #99 (Horseshoe Bay to Lillooet) Highway #12 (Cache Creek to Lytton) Highway #40 (Lillooet to Gold Bridge)	Provide tourist amenities						Promotes tourism	D,C	X		
H18 Birkenhead Lake Park Road	D'Arcy Road to Birkenhead Lake	MTH to take over							P	X		

SHORT TERM PLAN: 0 5 YEARS IMPLEMENTATION

Table 6.1

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF SQUAMISH-LILLOOET

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
H19 Stawamus Pedestrian Access	North of Stawamus River	Provide safe pedestrian access to Stawamus Reserve across Highway #99						Children's safety.	D,C	0 3		
LILLOOET												
H20 Highway #99, #40, #12 Connection	Main Street - Lillooet	Reconstruct urban roadway to two lanes plus parking and left turn slots						Reduce congestion, improve safety, promote residential, tourism, industrial development	D,C	X		
H21 Veterans Land Act (VLA) Subdivision Alternate Access	VLA Subdivision - Lillooet	Provide an alternate road access to the VLA subdivision currently isolated by BC Rail						Fire, Emergency access will improve safety Supports residential growth	P	X		
H22 Station Hill Road Overpass	BC Rail/Station Hill Road - Lillooet	Implement the study recommendations completed by Ministry of Transportation and Highways						Improve safety, reduce delays caused by vehicle and train conflicts Supports tourism, residential, and industrial growth.	D,C	X		
AH												
A1 Complete Pemberton Airport	Pemberton	Complete Microwave Landing System (MLS) installation and make operational Complete the lighting, dyking and taxiway facilities Provide passenger and cargo terminal facilities						Supports tourism, residential and industrial growth	D,C	X		
A2 Navigational Aids	Lillooet, Squamish	Improve navigational aids at the local air strip						Supports tourism, residential and industrial growth	D,C		X	
A3 Runway Extension	Lillooet, Squamish	Lengthen the existing runway facilities						Supports tourism, residential and industrial growth	D,C		X	
A4 Heliport Facilities	Whistler, Squamish	Provide Heliport facilities						Supports tourism, residential and industrial growth	D,C	X		
A5 Float Plane Facilities	Whistler, Squamish Lillooet	Provide Float Plane facilities						Supports tourism, residential and industrial growth	D,C	X		

Table 6.1

SHORT TERM PLAN: 0-5 YEARS IMPLEMENTATION

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF SQUAMISH-LILLOOET

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC. RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
A6 Terminal Building	Squamish	Provide passenger and cargo terminal facilities						Supports tourism, residential and industrial growth.	D,C	X		
MARINE												
M1 Terminal Development	East side of Blind Channel - Squamish	Continue with construction of multi-use Marine Terminal Facility						Increase industrial Port development.	C			
M2 Anderson Lake Access Road	South end of Anderson Lake	Provide a public wharf on D.L. 100, an access road and parking						Tourism and residential growth. Service leased recreational lots.	D,C			
M3 Seton Lake Access Road	North end of Seton Lake	Construct a public wharf and access road along the north side of Seton Creek adjacent to BC Rail with float plane docking facilities.						Tourism and residential growth.	D,C			
M4 Anderson Lake	North end of Anderson Lake	Acquire public access						Tourism and residential growth.	R.O.W.			
M5 Seton Lake	South end of Seton Lake	Acquire public access						Tourism and residential growth.	R.O.W.			
M6 Lillooet Lake Boat Launching Access	East side of Lillooet Lake	Improve lake access to provide for boat launching.						Tourism and residential growth.	C			
RAIL												
R1 Britannia Waterside Access	Britannia Beach	Provide pedestrian and vehicular public access to Howe Sound						Access to historic and recreational sites supports tourism and industrial growth.	P	X		

LONG TERM PLAN: TO YEAR 2000

Table 6.2

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF SQUAMISH-LILLOOET

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
ROAD												
H1 Highway #99 and Capilano Corridor Study	Furry Creek to Southern Alternate connection in North Vancouver	A preliminary analysis of upgrading Highway #99 or selecting an alternative corridor was carried out in 1983. Since that time considerable money has been spent on Highway #99. This has improved its standard considerably. However, most of it is still only two lanes with restricted curvature and it will be very expensive to upgrade to the capacity that will be required into the year 2000. A definitive study is required using more accurate mapping (1:5000 or 1:2000 scale) to establish comparative costs of: a) continuing to upgrade Highway #99 to four lanes with no post barriers and b) developing an alternative corridor up Capilano while allowing Highway #99 to continue to provide local access and a highly valuable scenic tourist route	7800 (0.8 km north of Horseshoe Bay)					Supports tourism, industrial and residential growth	D,C	X		
H3 Hurley/Highline Route	Pemberton/ Lillooet	Construct alternate route chosen from planning study							D,C	X		
H5 Britannia East Bypass	Browning Lake to South of Britannia	Relocate Highway #99 to east side of Britannia						Supports tourism, residential and industrial growth	D,C	X		
H16 Birkenhead Lake Park Road	D'Arcy Road to Birkenhead Lake	MTH to take over							D,C	X		
H23 Highway #40 Upgrading	Lillooet to Gold Bridge	Hard surfacing is required						Improve safety, reduce maintenance costs of gravel surface. Supports residential and industrial growth	D,C		X	
H24 Mission Mountain Road Upgrading	Seton to Highway #40 (over Mission Mountain) - Lillooet	Hard surfacing is required						Improve safety, reduce maintenance costs of gravel surface	D,C		X	
H25 Port Douglas Road	Mount Currie to Harrison Mills	Study to identify feasibility of upgrading this route.						Supports tourism	P			X
H26 Pemberton Truck Route	West to south of Pemberton	Study route location for truck bypass						Improve safety, supports industrial growth	P,D,C			X

LONG TERM PLAN: TO YEAR 2000

Table 6.2

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

REGIONAL DISTRICT OF SQUAMISH-LILLOOET

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC SADT 1987	TRAFFIC SADT 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH	MEDIUM	LOW
LILLOOET												
H21 Veterans Land Act (VLA) Subdivision Alternate Access	VLA Subdivision - Lillooet	Provide an alternate road access to the VLA subdivision currently isolated by BC Rail						Fire, Emergency access will improve safety. Supports residential growth	D,C	X		
RAIL												
R2 Urban Rail/Road At-grade Crossings	All Municipalities	Consider signalization and grade separations in the short term. Consider rail consolidation in the long term						Improve safety, supports tourism, residential and industrial growth. Industrial growth.	P	X		

Table 6.3

SUMMARY OF PROPOSED INITIATIVES

SQUAMISH-LILLOOET REGIONAL DISTRICT

INITIATIVE TITLE	PROBLEM/OPPORTUNITY	ACTION PROPOSED
Rail		
Dangerous Goods	Truck and rail transportation through urban areas.	Federal/Provincial Study.
Freight Rate Inequities	Economic discrimination.	Provincial/Federal commitment to equality.
Property Tax Exemptions	Significant service cost to host community.	Provincial grant in lieu of taxes.
Encourage Passenger Emphasis	Schedule is not conducive to commuting. Increased scheduling required for Seton school children, shopping, tourism and other public services.	Carry out an economic study to determine feasibility of upgrading passenger service to the area.
Rail Inter-Modal Planning	All planning is currently done in-house.	Improve BC Rail's public communication. Make their long term planning known to the public through open houses.
Increase Log/Lumber Carrying Capacity	Current economic hardship to producers.	Economic studies required.
Marine		
Develop Port Administrative Body	There is no local authoritative body for resolving planning issues and port traffic conflicts.	Establish a Howe Sound Harbour Commission.
Air		
Custom Facilities	Encourage direct international trade.	A study is required to assess the best location in this Region to be served by these facilities.

7.0 SUNSHINE COAST REGIONAL DISTRICT

7.0 SUNSHINE COAST REGIONAL DISTRICT

The Sunshine Coast Regional District is part of the south west B.C. mainland but is separated from the Vancouver lower mainland by Howe Sound and from Vancouver Island by Georgia Strait. The primary access to the Regional District is a 40 minute - 15 km ferry trip from Horseshoe Bay. Most points on the Sunshine Coast are within one and a half hours travel time from downtown Vancouver.

The permanent population is approximately 17,000 with an additional 10,000 summer residents, many of whom commute daily to employment in Vancouver.

The economy is predominantly based on the forest industry (both logging and pulp and paper production) but tourism and agriculture are also strong components.

Current and proposed future developments with significant potential economic impact include:

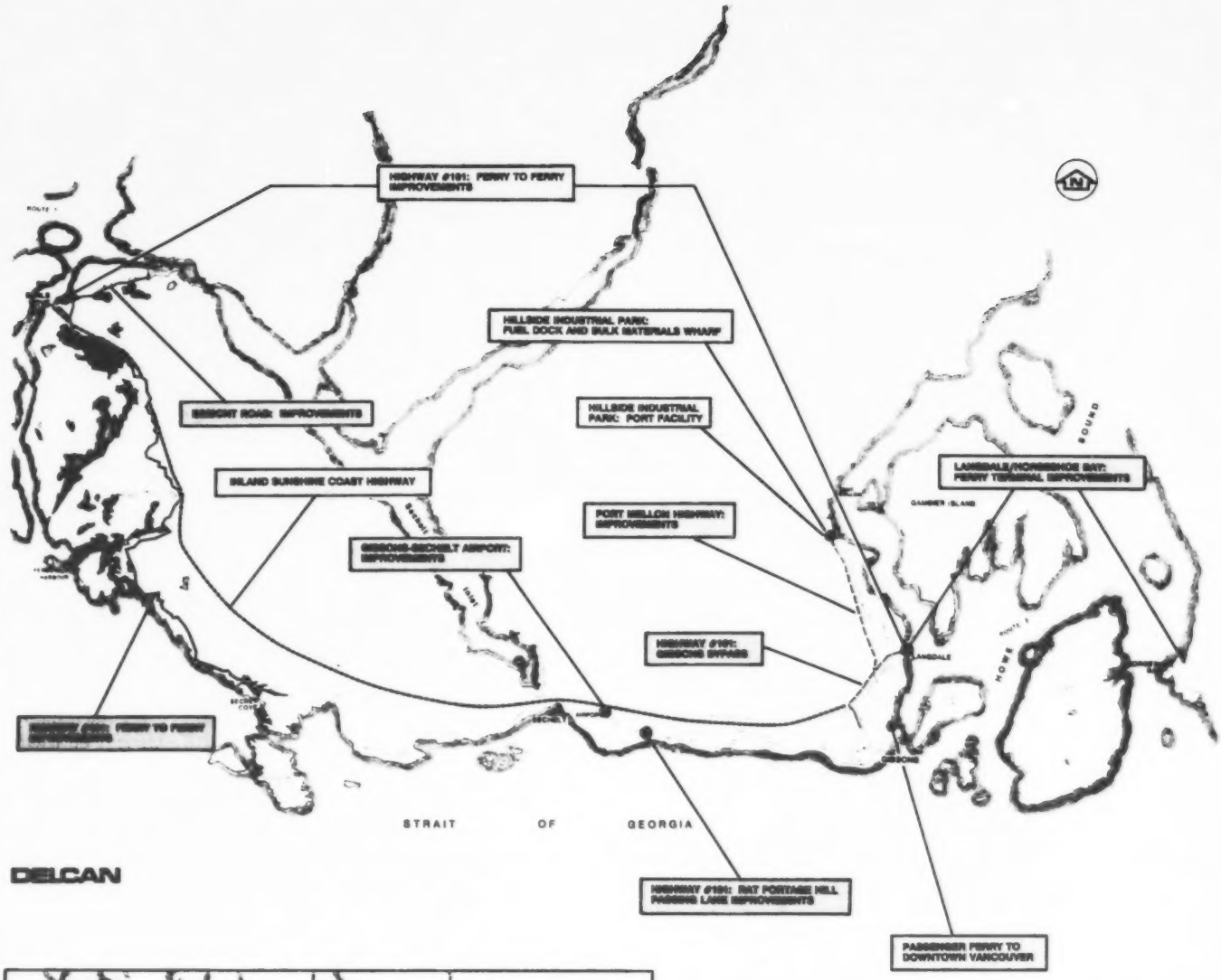
- the one billion dollar redevelopment of Howe Sound Pulp and Paper, currently under construction;
- the 405 acre Hillside Industrial Park, currently under development; and
- projected growth in the currently underdeveloped tourism sector.

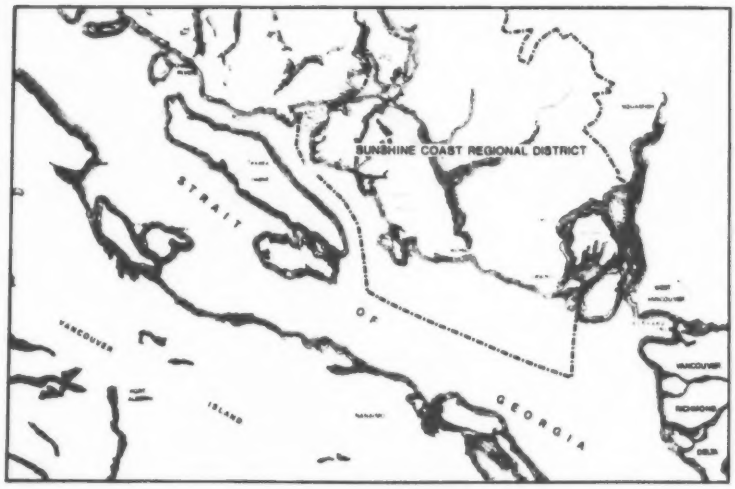
The Highway 101 road/ferry corridor from Horseshoe Bay to Earls Cove is the primary vehicle access to the Regional District and therefore critical to the economy. The safe operation of traffic using Highway #101 and its interface with local traffic is of highest priority to the Regional District. The proposed Gibsons Bypass and Highway #101 improvements (at Rat Portage Hill and from Secret Cove to Earls Cove) are centred on these needs of greater safety.

The fuel dock proposed as a first phase of a bulk handling port for the Hillside Industrial Park is also in support of greater safety. There is currently an absence of marine transport facilities for hazardous goods in this area to minimize potential conflicts with populated areas.

The insular nature of the Sunshine Coast Regional District makes it dependent for transportation on an effective and economical ferry service. The proposed terminal improvements at Langdale and Horseshoe Bay are an important component of the overall ferry service to the Regional District.

The following Exhibit and Tables give a summary of the Sunshine Coast Regional District's priority transportation needs.


HIGHWAY #101: FERRY TO FERRY IMPROVEMENTS
HILLSIDE INDUSTRIAL PARK: FUEL DOCK AND BULK MATERIALS WHARF
HILLSIDE INDUSTRIAL PARK: PORT FACILITY
SEASIDE ROAD: IMPROVEMENTS
INLAND SUNSHINE COAST HIGHWAY
PORT MELLON HIGHWAY: IMPROVEMENTS
SECHELT AIRPORT: IMPROVEMENTS
HIGHWAY #101: GIBSONS BYPASS
LANGDALE/HORSESHOE BAY: FERRY TERMINAL IMPROVEMENTS
HIGHWAY #101: FERRY TO FERRY
HIGHWAY #101: BAT PORTAGE HILL PASSING LANE IMPROVEMENTS
PASSENGER FERRY TO DOWNTOWN VANCOUVER
STRAIT OF GEORGIA
DELCAN



LEGEND

- Provincial Highway improvements
- Provincial Side Road Issues
- Interchange/Intersection/Structure Issues
- Air Traffic Improvements

NOTE:
SHORT TERM PROJECTS
LONG TERM PROJECTS

REGIONAL TRANSPORTATION PLAN

SUNSHINE COAST REGIONAL DISTRICT

EXHIBIT 1

Table 7.1

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

SUNSHINE COAST REGIONAL DISTRICT

SHORT TERM PLAN: 0-5 YEARS IMPLEMENTATION

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

	PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC 1987	TRAFFIC 2000	LEVEL OF SERVICE 1987	LEVEL OF SERVICE 2000	ACC.* RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY HIGH (1st year)	MEDIUM (2nd-3rd years)	LOW (4th-5th years)
H1	Highway #101 Gibsons Bypass	Langdale Ferry Terminal to Highway #101 at Pratt Road	Construct 6.11 km bypass of Gibsons to alleviate congestion during loading/unloading of the ferry and reduce congestion through Gibsons during traffic dispersion	800+ (1989 peak hour one way counts on North Rd	....	E	F	—	Safety Supports tourism Supports residential growth Supports industrial growth	D C	0.1 7.0		
P1	Hillside Industrial Park Fuel Dock and Bulk Materials Wharf	Hillside Industrial Park	Construct a dock to handle dangerous goods	....	....	....	....	...	Safety	D,C	2.0***		
H2	Highway #101: Rat Portage Hill Passing Lane Improvements	Highway #101 at Rat Portage Hill	Widen and realign 1 km of road to improve existing deficient passing lane. (This is the only designated passing area on the Gibsons-Sechelt Route)						Safety	P,D C	0.05	1.0	
H3	Highway #101 Improvements: Secret Cove to Earls Cove	Highway #101: Secret Cove to Earls Cove	Upgrade horizontal and vertical alignment of 30 km of highway to 80 km/h design standard, reduce frequency of accesses and correct other safety hazards	850 (1986 count at Earls Cove)					Safety Supports tourism Supports growth	P,D C	0.5	10.0	10.0
F1	Langdale/Horseshoe Bay Ferry Terminal Improvements	Langdale and Horseshoe Bay	Improve vehicle access/egress, holding compound capacity and parking facilities at Langdale.	....	....	....	....	....	Supports tourism Supports industrial growth Supports residential growth	P,D C	0.25	3.0	
			Provide separate Sunshine Coast access to the terminal at Horseshoe Bay so as to improve vehicle and pedestrian movements, increase holding compound capacity and parking facilities		....	....	....	....	Safety	D,C		**	
H4	Port Mellon Highway Improvements	Langdale Ferry Terminal to Port Mellon Mill	Widen and upgrade deficient alignment on 7 km section of road, be new alignment to the proposed Gibsons Bypass and Hillside Industrial Park	590 - 1,300 (1986 counts taken at north and south ends)					Safety Supports industrial growth	P,D C	0.3	1.5	6.0
H5	Egmont Road: Improvements	Highway #101 to Egmont	Upgrade deficient alignment (horizontal and vertical) on 6 km of road, immediate repair work required at slide area						Safety Supports tourism Supports industrial growth	D C	0.2 (slide)	0.2 (other) 1.0 (slide)	4.0 (other)
A1	Gibsons-Sechelt Airport: Improvements	Wilson Creek - north end of Field Road	Expand runway to 75' x 4,000', add taxiways, and install night lighting to accommodate medivac and other emergency evacuation aircraft	....	....	....	....	....	Improves medical services Supports industrial growth Supports tourism	D C	0.05	1.0***	
									SHORT TERM PLAN SUB-TOTALS		10.45	17.7	20.0
									TOTAL			48.15	

* Accidents per million kilometres of travel
(No accident rates are available for Sunshine Coast)
** Project outside Regional District (A portion of capital cost is directly attributable to Sunshine Coast)
*** Cost shared with Federal Government

LONG TERM PLAN: TO YEAR 2000

Table 7.2

PROVINCE OF B.C. TRANSPORTATION PLAN
MAINLAND SOUTHWEST

SUNSHINE COAST REGIONAL DISTRICT

TYPE OF PROJECT

P - PLANNING AND RIGHT-OF-WAY IDENTIFICATION
D - DESIGN
C - CONSTRUCTION

	PROJECT NAME	LOCATION	DESCRIPTION	TRAFFIC		LEVEL OF SERVICE		ACC.* RATE	BENEFITS	TYPE OF PROJECT	ESTIMATED COST $(MILLIONS) AND PRIORITY		
				1987	2000	1987	2000				HIGH	MEDIUM	LOW
H6	Highway #101: Ferry to Ferry Improvements	Langdale to Earls Cove	Further upgrading of Highway #101 (beyond the short term requirements) to higher safety and design standards, improve 'ferry to ferry' connection in support of a circuit route with Vancouver Island. This will include passing lanes, left turn lanes and intersection improvements.	---	---	---	---	---	Supports industrial growth Safety Supports tourism	P,D C	0.5	10.0	
P2	Hillside Industrial Park Port Facility	Hillside Industrial Park	Develop port facility for safer movement/storage of fuel products and for transport of other bulk products.	---	---	---	---	---	Safety Supports industrial growth	P,D C	0.5	10.0***	
H7	Inland Sunshine Coast Highway	Gibsons Bypass to Earls Cove	Planning and right-of-way protection for an alternative Sunshine Coast highway that will parallel Hwy #101.	---	---	---	---	---	Safety to coastal residents Supports tourism Supports industrial growth Commerce	P C		0.5	100

* Accidents per million kilometres of travel
(No accident rates are available for Sunshine Coast)
*** Cost shared with Federal Government

Table 7.3

SUMMARY OF PROPOSED INITIATIVES

SUNSHINE COAST REGIONAL DISTRICT

INITIATIVE TITLE	PROBLEM OPPORTUNITY	ACTION PROPOSED
1) Improve the scheduling and convenience of the ferry service	Inconvenience to residents and visitors; deterrent to economic growth.	Additional and late night sailings on Routes 3 and 7 should be reinstated/introduced. These services are essential to maintain lifestyle and support economic development on the Sunshine Coast.
2) Transit Service Improvements	The existing paratransit program does not adequately serve the community.	Additional transit capacity should be provided as the need is identified for both special needs and residential users.
3) High speed passenger transportation link between Sunshine Coast and downtown Vancouver	Convenience to commuters. Urban linkage to employment opportunities. Economic stimulator.	Support private sector initiatives to develop alternative high speed transportation links between Sunshine Coast and downtown Vancouver transit service.
4) Ensure direct links to Vancouver	Road access to Squamish may result in the suspension of ferry service.	Work to maintain policies that will lead to the quickest and cheapest vehicle access to the Lower Mainland.
5) Dangerous Goods Handling	Potential spills of chlorine, petroleum products and other dangerous cargoes.	Establish storage sites at point of entry to Sunshine Coast for dangerous cargo to be used locally.
6) Bicycle Highway Allowance	Safety for cyclists. Promotion of tourism and recreation.	Promote additional width on provincial highways so as to encourage cycle touring.

APPENDIX A - ECONOMIC OVERVIEW

ECONOMIC OVERVIEW

INTRODUCTION

Although the Mainland/Southwest Region is the smallest of the 8 Development Regions (covering 4.2 percent of the land area of the Province - 3,723,000 ha or 9.2 million acres), it is by far the most populous. For planning and administrative purposes it has been divided into no less than six Regional Districts: Greater Vancouver; Central Fraser Valley; Dewdney-Alouette; Fraser-Cheam; Sunshine Coast; and Squamish-Lillooet.

The Region consists primarily of the Fraser Valley and associated uplands, and the mountains that border them. It also encompasses a portion of the adjacent mainland coast north-west of Vancouver which is connected to that city by highway and coastal ferry system, as well as the Squamish and Lillooet River valleys which link through Anderson and Seton Lakes to Lillooet.

The Fraser Valley is an extensive area of flat to rolling land ranging from sea level in the valley bottom to elevations of 1,000 feet (300 metres) or more in the uplands. The flattest lands occur in the delta area to the west, while hilly terrain is encountered toward the entrance of the Fraser Canyon near Hope. In the lowest areas the land is dyked against the sea or river waters. The uplands south of the Fraser River are rolling to fairly level, ranging up to 400 feet (120 metres) in elevation. Because of its topography, favourable soils, mild climate and proximity to major markets, this is one of the most intensively farmed areas in the Province.

North of Hope lies the Fraser Canyon, the most important corridor between the Lower Mainland and the Interior of the Province. In this part of its course the Fraser River cuts through the Coast Mountains and the valley walls rise steeply to elevations of 1,800 to 2,100 metres on either side. The river gradient is also steep, and rapids limit navigation to the section below Yale. For the first 25 km north of Hope, fragments of bench land extend along either side of the river. For the next 25 km the valley is very narrow, then fragments of river bench reappear and extend beyond the northern boundary of the Region. To the east of Hope the territory is mountainous; the Cascade Mountains generally rise to 1,500-1,800 metres with some peaks reaching 2,300 metres.

North of the lower Fraser Valley the terrain is extremely rugged. North-south trending valleys, many containing large lakes, extend northward from the Fraser River but only the Harrison-Lillooet chain forms a major break through the mountains. Rugged mountains also dominate the bulk of the lower coast north-west of Vancouver, although there is a comparatively gentle slope to the sea.

Along the Fraser River at Lillooet, river benches are again the predominant feature. To the south and west of Lillooet, the Cascade and Coast mountain ranges in turn form extremely rugged barriers, having an average elevation in excess of 2,130 metres. The upper portion of the Lillooet river cuts through a

narrow alluvial plain known as the Pemberton Valley. This valley has been dyked extensively to permit agricultural development. At Squamish, the Squamish River empties into the head of Howe Sound, the first major coastal fiord north of Vancouver. Rugged valley walls, smoothed by former glaciers, rise 1,200-1,800 metres above the turbulent Squamish river and its tributaries, providing an ideal setting for winter sports activities.

The climate is greatly influenced by the Pacific Ocean, which produces rather small ranges of seasonal temperature and moderate to heavy precipitation. Although the Coast Mountains have the highest totals of rain and snow in Canada, amounts vary greatly with elevation and latitude, from a low of 75 centimetres to a high of over 250 centimetres annually. The frost free period generally exceeds 200 days but drops somewhat away from the ocean. Only at Lillooet, geographically a part of the Interior Plateau, does a continental type of climate predominate, with low precipitation and a wider range of seasonal temperatures. Most of the natural tree cover has been removed from the land suitable for cultivation or habitation, but higher land supports extensive stands of timber, which in turn supports considerable industrial activity.

GENERAL ECONOMY

For purposes of analysis the Mainland/Southwest Region has been subdivided into 19 economic areas within 6 Regional Districts. Although the emphasis varies, service industries, trade and manufacturing are the principal sectors of the local economies in the Vancouver, Burnaby, New Westminster, North Vancouver, Richmond, Coquitlam, Surrey and Delta Areas. The West Vancouver Area is primarily a residential suburb where service industries and trade are the principal local sources of employment. Most of the Areas in the Lower Mainland are closely inter-related, with no clearly defined boundaries on places of employment, expenditure or residence. In general terms the densely populated urban core has been steadily expanding from Vancouver, pushing before it the suburban neighbourhoods of single family dwellings. The latter now are firmly established in Pitt Meadows - Maple Ridge and Matsqui - Abbotsford Areas and have moved even farther eastward. Industrial activity has also moved outward in search of larger sites and reduced congestion. Valuable farmland now enjoys Legislative protection; hence, heavily populated suburban Areas also support considerable agricultural activity. Beyond the pervasive influence of Greater Vancouver, the primary resource industries are of greatest importance. The forest industries are particularly significant in Squamish, Lillooet, Hope - Fraser Canyon, Sunshine Coast, Kent - Harrison and Mission Areas. In the Squamish Area, railcar maintenance, port operations, and tourism provide additional economic support. In the Chilliwack Area agriculture is the dominant resource activity.

The relative importance of various industries is indicated by the number employed in each. In 1981 the composition was as follows: agriculture 1.7 percent; forestry (logging) 1.0 percent; fishing and trapping 0.3 percent; mines and quarries 0.5 percent; manufacturing 14.0 percent; construction 6.9 percent; transportation, communication and other utilities 10.0 percent; trade 18.2 percent; public administration and defense 5.8 percent; other tertiary (service) industries 37.7 percent; and unspecified 3.9 percent.

The dominant position of the Mainland/Southwest Region is illustrated by the fact that it accounts for a very large proportion of the total number of persons in each industry in the Province. In 1981 the experienced labour force numbered 760,610 persons or 54.6 percent of the Provincial total. The Region's share of the total number employed - or available for employment - in each industry category was as follows: agriculture 41.2 percent; forestry (logging) 20.2; fishing and trapping 39.9; mines, quarries and oilwells 17.4; manufacturing 53.8; construction 49.9; trade 58.4; transportation, communication and other utilities 61.6; finance, insurance and real estate 66.7; community, business and personal services 57.9; public administration and defence 46.2 percent. Only in three instances was the Mainland/Southwest exceeded; Vancouver Island/Coast Region had a larger share of Provincial forestry (logging) and fishing employment, while Kootenay and Thompson-Okanagan Regions had a larger share of mining employment.

As the financial, educational, trade, tourism, manufacturing and cultural centre of the Province, the Region will continue to benefit from the development of its hinterland. As the major Pacific Coast port, it will also continue to benefit from economic growth throughout Western Canada.

MANUFACTURING

In 1985, manufacturing industries provided employment for 68,907 persons, including 178 working owners, or 55.4 percent of the total number of manufacturing jobs in the Province. In addition to being the Region with the most manufacturing activity, the Mainland/Southwest can claim the greatest industrial diversity. Although the wood industries as a group was the leading component in terms of employment (18.5 percent), food industries led in terms of the value of shipments (19.6 percent). Other large groups included petroleum refining and paper and allied industries (in terms of shipments), and printing and publishing and metal fabricating (in terms of employment). Manufacturing industries in the Region accounted for 55 percent of the value of all factory shipments in the Province in 1985. A summary of the principal statistics by Regional Districts is provided in the following table.

MANUFACTURING ACTIVITY 1985 (Preliminary)

Regional District	Establish-ments	Employees	Salaries and Wages ($000)	Value of Shipments ($000)	Value Added ($000)
Squamish-Lillooet	17	620	24,136	117,693	40,209
Central Fraser Valley	184	4,152	107,856	622,942	233,394
Dewdney-Alouette	84	3,030	84,791	348,351	127,793
Sunshine Coast	13	490	20,001	67,553	11,371
Fraser-Cheam	57	1,350	36,161	192,779	70,224
Greater Vancouver	2,062	59,087	1,705,206	9,308,310	3,421,367
Totals	2,417	68,729	1,978,151	10,657,628	3,904,358

Greater Vancouver Regional District holds a dominant position in the manufacturing sector of the Provincial economy, accounting for 51 percent of all establishments, 48 percent of all employees and 48 percent of the value of all factory shipments in 1985. The following table provides a summary of the major categories within the G.V.R.D. Comparable detail for the Region as a whole is not available because confidentiality requirements prevent disclosure of statistics at this level for some Regional Districts.

PRINCIPAL MANUFACTURING STATISTICS 1985 (Preliminary)
GREATER VANCOUVER REGIONAL DISTRICT

Industry	Establish-ments	Employees	Salaries and Wages ($000)	Value of Shipments ($000)	Value Added ($000)
Food industries	147	8,718	237,100	1,658,328	510,323
Beverages	13	1,781	62,004	299,552	167,392
Rubber and plastics	84	1,509	36,800	174,343	80,923
Clothing	64	2,954	45,873	146,824	84,889
Wood industries	164	164	282,766	1,056,374	435,163
Furniture and fixtures	97	1,451	32,361	100,824	52,532
Paper and allied	37	2,863	96,626	504,536	201,356
Printing and publishing	339	6,100	181,943	474,739	293,664
Machinery (except electrical)	127	3,506	109,345	354,032	206,750
Metal fabricating	303	5,947	171,428	600,098	303,073
Transportation equipment	106	3,491	113,159	449,348	239,064
Electrical and electronic products	89	3,267	89,548	300,506	144,895
Non-metallic minerals	52	1,850	62,973	249,248	119,892
Petroleum and coal products	8	752	31,570	2,196,840	239,261
Chemical products	81	1,577	47,567	363,757	164,187
Other	351	4,468	104,143	378,961	178,003
Totals	2,062	59,087	1,705,206	9,308,310	3,421,367

FORESTRY

The Mainland/Southwest Economic Development Region comprises only 4.4 percent of the total regulated forest area of the Province, 3.3 percent of the total area of mature timber, and 4.7 percent of the volume of mature timber. It includes all of the Fraser and Soo Timber Supply Areas as well as the eastern third of the Sunshine Coast TSA and approximately two-thirds of the Lillooet TSA. It incorporates two Tree-farm Licences and a portion of a third, covering cottonwood stands along the lower Fraser River, plus a number of small farm wood-lots and private tree-farms.

FOREST COVER AREA CLASSIFICATION

Class	Area (hectares)	Percentage Distribution
Mature Timber	828,476	24.9
Immature Timber	663,930	19.9
Residual	1,348	0.0
Not Satisfactorily Restocked	55,930	1.7
Non-commercial stands	3,185	0.1
Non-forest	1,780,582	53.4
TOTAL	3,333,451	100.0

ESTIMATED MATURE TIMBER VOLUME BY SPECIES

Species	Estimated Volume (10 m3)	Percentage Distribution
Douglas fir	5,069,320	18.5
Western red cedar	2,022,187	7.4
Hemlock sp.	7,213,396	26.4
Balsam sp.	8,739,108	31.9
Spruce sp.	1,639,571	6.0
Yellow cedar	797,784	2.9
Larch sp.	0	0.0
Western white pine	124,022	0.4
Lodgepole pine	1,408,455	5.2
Yellow pine	56,760	0.2
Whitebark pine	178,310	0.7
Cottonwood sp.	45,064	0.2
Red alder	26,366	0.1
Broadleaf maple	18,348	0.1
Birch sp.	11,239	0.0
Aspen	3,223	0.0
TOTAL	27,353,153	100.0

Hemlock and balsam are the major species harvested, followed by Douglas fir, cedar and spruce. Logging employment has fluctuated with the demand for logs but rising productivity within this Region is apparent. Logging activity is substantial in all Areas outside of the Greater Vancouver and Central Fraser Valley Regional Districts.

Sawmilling employment has been cut sharply because of improved productivity and sawmill closures. In this Region in 1986, there were 32 active primary sawmills with 8-hour shift capacity of more than 15 Mfbm. These had a combined capacity of 4,942 Mfbm per 8-hour shift or 15.6 percent of the Provincial total. (These statistics do not include remanufacturing plants.) There were also 42 shake

and/or shingle mills in operation during 1986 with the total capacity of 10,675 squares per shift. Lumber production is concentrated in Greater Vancouver and is characterized by a number of very large mills.

In 1986, veneer and/or plywood were manufactured in seven plants located in Vancouver, New Westminster, Richmond, Delta, Surrey, Coquitlam, and Lillooet. The industry has been declining in recent years because of competition from other board products and a reduced supply of peeler logs. In 1985, Canadian Forest Products Ltd. closed its large plant in New Westminster and Weldwood of Canada shut down its T-Ply plant in Surrey at the end of 1987. Canadian Forest Products Ltd. continues to operate a hardboard plant in New Westminster and MacMillan Bloedel Ltd., a particle board plant in Vancouver.

Pulp and paper mills provide employment in 5 plants. The mills are: the Port Mellon pulp mill of Canadian Forest Products Ltd.; the Scott Paper Ltd. mill at New Westminster; the Island Paper Mills Ltd. plant on Annacis Island; the Western Pulp Ltd. Partnership pulp mill at Woodfibre (Squamish); and the Paperboard Industries Corp. paperboard mill in Burnaby. Together they represented capacity of 450,000 tonnes of pulp and 378,000 tonnes of paper annually, 6.4 percent and 13.7 percent, respectively, of the Provincial totals in 1986. Expansion of pulp capacity and the addition of newsprint at Port Mellon is planned, as is a new coated paper mill at Britannia Beach.

There are also a number of paper converting plants producing a wide range of paper items, several plants producing laminated wood beams and trusses, wood preservation plants, lumber remanufacturers, and a number of sash, door, and millwork operations. The Vancouver Area also houses virtually all of the head office operations of the Province's major forest companies; together they employ many thousands of workers in the non-manufacturing end of the business. Additional development of the forest industries is anticipated through greater diversification and increased productivity. Much of the milling capacity in the Region has been upgraded or replaced in recent years, and this process is continuing, which suggests that further reductions in employment at basic conversion facilities are probable.

AGRICULTURE[1]

Although the Mainland/Southwest Region contains the largest urban centre in British Columbia, and thousands of acres of farmland have been lost to other uses over the years, it remains the leading farming district by a wide margin. Of 5,751 census farms (with sales of $250 or more), over 26 percent reported cash receipts exceeding $100,000, and 250 farms had gross sales over $500,000 in 1985. In view of high average returns and low average size, farming operations may be described as intensive and highly specialized. As the following table illustrates, they are also extremely diverse.

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[1] Statistics on farm land, livestock, land use, capital values, and employment exclude 41 farms in the Sunshine Coast Area.

CENSUS FARMS CLASSIFIED BY SALES AND PRODUCT TYPE - 1986 CENSUS

	Sunshine Coast	Greater Vancouver	Fraser Valley	Central Dewdney-Alouette	Fraser-Cheam	Squamish-Lillooet
Total number of farms	41	1,325	2,549	653	1,075	108
Value of products sold in 1985						
$250,000 and over	-	161	399	66	157	1
$100,000 to $249,999	1	136	315	70	203	6
$50,000 to $99,999	-	87	132	24	51	11
$25,000 to $49,999	2	110	175	29	42	8
$10,000 to $24,999	3	158	274	43	105	16
$5,000 to $9,999	3	144	246	62	126	17
$2,500 to $4,999	10	163	358	104	136	15
under $2,500	22	366	650	255	255	34
Farms with sales of $2,500 or more by product type						
Dairy	1	60	287	96	286	1
Cattle	2	145	420	96	202	26
Hogs	2	13	66	13	46	-
Poultry	1	53	265	25	48	4
Wheat	-	-	1	-	2	-
Small grains (excluding wheat farms)	-	5	2	-	1	-
Field crops, other than small grains	-	49	8	2	4	17
Fruits and vegetables	4	275	310	46	92	10
Miscellaneous specialty	8	265	367	71	82	9
Mixed	1	94	173	49	57	7

The most intensive farming activity (that which produces the highest return per acre) is found closest to - or within - metropolitan Vancouver. Analysis of historical records indicates a gradual outward movement from Vancouver over time, with those sectors having the biggest land requirements (dairy and beef cattle) becoming concentrated at the outer limits of the Region or moving right out of the Lower Mainland.

Farm land in 1986 totalled 252,184 acres (102,054 ha) or 2.7 percent of the Region; 183,359 acres, or 73 percent, were classified as improved and 134,119 acres were under crops. Just over half of the crop land was in tame hay; however, the Region is unable to produce enough hay for local needs and has become a major importer. Other fodder crops comprised a further 20,273 acres, followed by vegetables (14,705 acres), small fruits (12,304 acres), potatoes (5,172 acres), and nursery crops (2,471 acres). In relation to Provincial totals, vegetables represented 79 percent, nursery crops 64 percent, small fruits 74 percent, and potatoes 66 percent. In addition, 962,485 square metres of greenhouse space was reported in 1986, as well as 191,175 square metres of mushroom houses, which represented 74 and 96 percent of the provincial totals, respectively.

The Regions's leading role is also evident in both livestock and poultry. Cattle numbered 140,433 in 1986, a figure exceeded only by the Thompson-Okanagan Region. Just under two-thirds of the Province's dairy cows and heifers, 75,858 in

number, were recorded in 1986. Pigs (72 percent of the Provincial total), hens and chickens (75 percent), and turkeys (85 percent), also make a significant contribution to the value of livestock and poultry inventories, which totalled $151.7 million in 1986. The value of all farm product sales in 1985 was $591.3 million, 55.7 percent of the provincial total.

The capital value of all farm land, buildings, machinery and stock was estimated at $2,387.8 million in 1986, 36.8 percent of the total for the Province. The industry provided the equivalent of 6,207 person-years in full-time and part-time employment. Many more jobs are based on agricultural processing, farming inputs and the related sales and distribution functions. Although the industry plays a large role in the regional economy, many farms are not viable units. Farm operators reported 563,240 days of off-farm labour, the equivalent of 2,166 full-time jobs.

MINING

All of the New Westminster Mining Division, the bulk of the Lillooet and a small part of the Vancouver Division are within the Region's boundaries. Major past producers include the Britannia mine on Howe Sound, which was in operation almost continuously from 1905 to 1974, and the Bridge River gold camp. The latter contained the Pioneer mine, which operated between 1925 and 1960, and the Bralorne, which produced from 1932 to 1971. More recent operations include the Northair at Whistler (1976-1982) and the Carolin gold mine near Hope (1981-1984).

At the present time, industrial minerals and structural materials constitute the bulk of mining activity in the Region. Cement, clay products, sand, gravel, and lime will account for most of the value of mineral production in the foreseeable future, as they have for some years. Nevertheless, metals may again play a significant role. Precious metals properties are under intense study in the Bralorne camp, and bioleaching studies at Carolin may solve the gold recovery and effluent problems that forced the mine to close. Recent seismic work is to be followed up by exploration drilling to determine if commercial deposits of oil or natural gas are to be found within the Fraser River delta.

The Region is not a significant contributor to Provincial mineral output; value of production in 1985 was only 3.9 percent of the British Columbia total. Of the eight Development Regions, the Mainland/Southwest consistently ranks sixth or seventh. However, the cement, lime and clay products represent manufactures whereas the output of the other regions is predominantly in the nature of raw materials.

VALUE OF MINERAL PRODUCTION ($), 1980 - 1985

	1980	1981	1982	1983	1984	1985
Gold	11,367,302	8,098,545	8,080,051	9,915,118	8,926,835	--
Silver	1,090,576	514,313	323,592	26,045	10,831	--
Lime and limestone	98,903	101,569	1,377,454	139,766	153,484	116,85
Cement	57,446,234	58,167,660	52,021,479	60,401,278	62,977,541	66,344,75
Clay products	10,387,121	10,292,772	5,853,261	7,335,946	7,230,396	9,390,54
Other structural materials	27,357,534	41,239,056	28,373,640	31,461,171	48,181,314	58,381,66
Zinc	729,419	806,387	418,337	--	1,168	--
Copper	71,717	40,300	18,600	--	129	--
Industrial minerals	--	--	--	18,060	32,976	--
Lead	591,279	413,349	216,100	--	--	--
Totals	109,140,085	119,673,951	96,682,514	109,297,384	127,514,674	134,233,82

TOURISM

Vancouver is the pulse of the Mainland/Southwest Region of British Columbia. This metropolitan centre of more than a million people contains facilities for almost every urban recreation: restaurants representing every corner of the world; nightclubs, discotheques and intimate bars; art galleries, symphony halls, theatres and movie houses; shopping malls, boutiques and sophisticated stores; parks and beaches; hotels, motels and resort complexes. It also has one of the most beautiful settings of any city in the world. Within an hour's driving distance of city centre one can find outdoor recreations including sailing or fishing in Howe Sound, skiing or hiking on the North Shore mountains, fishing in mountain streams, water sports in numerous lakes, and hunting.

British Columbia's greatest concentration of convention facilities is found here. From the hotels of downtown Vancouver to the resorts of Harrison Hot Springs, Whistler, and the Sunshine Coast, facilities are available to house conventions of any size.

North-west from Vancouver is the Sunshine Coast which has long been a favourite retreat for city dwellers. The farmlands of the Fraser Valley run east from Vancouver almost to Hope, where the famous Fraser Canyon begins. At the far eastern end of the Region is Manning Provincial Park, where each season offers its special attractions, from skiing to spring flowers in alpine meadows, to hiking well-marked trails, to fishing in well-stocked lakes and streams. To the north is Squamish, a popular site for rock climbing and windsurfing, and the burgeoning Whistler four-seasons resort community with world-class skiing facilities.

The Region is the major attraction for out-of-Province visitors and residents from other regions as well. Of the 8 Development Regions, the Lower Mainland ranks first in terms of roofed accommodation by a wide margin.

STATISTICAL PROFILE

REGION 2 - LOWER MAINLAND/SOUTHWEST

POPULATION

Year (June 1)	Number	Percent Change D.R.	Percent Change B.C.
1982	1,459,766		
1983	1,483,009	1.6	0.9
1984	1,513,665	2.1	1.2
1985	1,541,526	1.8	0.8
1986	1,567,004	1.7	0.7

PERSONAL TAXATION STATISTICS *

Year	Total Income Reported	Average Income D.R.	Average Income B.C.
	($ 000)	($)	($)
1980	14,490,215	15,646	14,777
1981	17,016,565	17,324	16,631
1982	18,157,083	19,129	18,192
1983	18,247,831	19,405	18,482
1984	19,102,657	20,099	19,102

UNEMPLOYMENT INSURANCE STATISTICS - 1986

Indicator	D.R.	B.C.
Working Age Population	1,270,089	2,296,625
Claimants	89,253	178,758
Female (%)	41.6	39.7
Total Under Age 25 (%)	20.2	21.0
Claimants as Percent of Working Age Population (1)		
1982	6.4	7.7
1983	7.5	8.0
1984	7.4	8.2
1985	7.4	8.1
1986	7.0	7.8

BUSINESSES BY EMPLOYMENT SIZE GROUP - 1986 *

Employment Size	Number	Percent D.R.	Percent B.C.
Under 20	46,788	90.6	91.9
20-49	2,656	5.1	4.5
50-99	806	1.6	1.3
100-499	560	1.1	0.9
500-999	48	0.1	0.1
1,000+	40	0.1	0.1
Unknown	753	1.5	1.2
TOTAL	51,651	100.0	100.0

BUSINESS INCORPORATIONS *

Year	Number	Percent Change D.R.	Percent Change B.C.
1982	7,781		
1983	9,724	25.0	20.6
1984	10,164	4.5	1.9
1985	11,157	9.8	10.9
1986	12,616	13.1	9.5

BUSINESS BANKRUPTCIES *

Year	Number	Percent Change D.R.	Percent Change B.C.
1982	467		
1983	555	18.8	21.6
1984	654	17.8	18.3
1985	584	-10.7	-9.5
1986	668	14.4	9.1

BUILDING PERMITS

Year	Value ($ 000)	Percent Change D.R.	Percent Change B.C.
1982	1,360,522		
1983	1,466,645	7.8	3.5
1984	1,401,217	-4.5	-10.5
1985	1,598,900	14.1	9.3
1986	1,790,197	12.0	10.5

* These statistics do not exactly correspond to municipal boundaries.

(1) These rates are not "unemployment rates". The working age population includes persons not in the labour force, and not all unemployed persons are entitled to claim UIC benefits.

PRODUCED BY: Central Statistics Bureau.